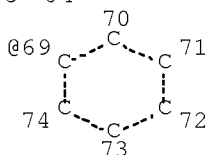
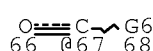
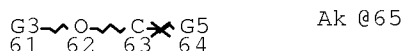
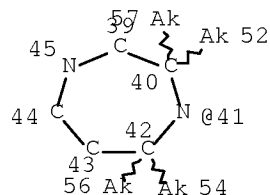
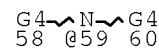
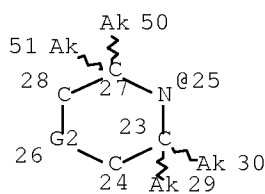
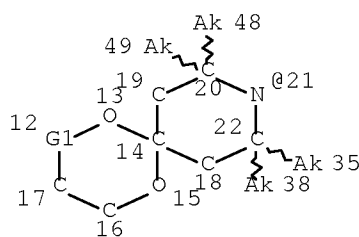
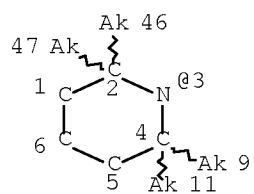


=> d que 141

L2 57 SEA FILE=REGISTRY ABB=ON PLU=ON (100-44-7/BI OR 109-01-3/BI OR 109-54-6/BI OR 109-55-7/BI OR 121-44-8/BI OR 12172-85-9/BI OR 12173-47-6/BI OR 12174-06-0/BI OR 12244-16-5/BI OR 12417-86-6/BI OR 1318-00-9/BI OR 1318-74-7/BI OR 1318-93-0/BI OR 1319-41-1/BI OR 1592-20-7/BI OR 17639-93-9/BI OR 188526-94-5/BI OR 20769-85-1/BI OR 2226-96-2/BI OR 264279-93-8/BI OR 319458-08-7/BI OR 478697-26-6/BI OR 565450-32-0/BI OR 61745-37-7/BI OR 61746-17-6/BI OR 627-18-9/BI OR 639809-48-6/BI OR 639809-49-7/BI OR 639809-50-0/BI OR 639809-51-1/BI OR 639809-52-2/BI OR 639809-53-3/BI OR 639809-54-4/BI OR 639809-55-5/BI OR 639809-56-6/BI OR 639809-57-7/BI OR 639809-58-8/BI OR 639809-59-9/BI OR 639809-60-2/BI OR 639809-61-3/BI OR 639809-62-4/BI OR 639809-63-5/BI OR 639809-64-6/BI OR 639809-65-7/BI OR 639809-66-8/BI OR 639809-67-9/BI OR 639809-68-0/BI OR 639809-69-1/BI OR 639809-70-4/BI OR 639809-71-5/BI OR 639809-72-6/BI OR 639809-73-7/BI OR 74-88-4/BI OR 74-96-4/BI OR 9003-49-0/BI OR 9003-53-6/BI OR 998-40-3/BI)

L6 SCR 1620 OR 1621

L9 STR

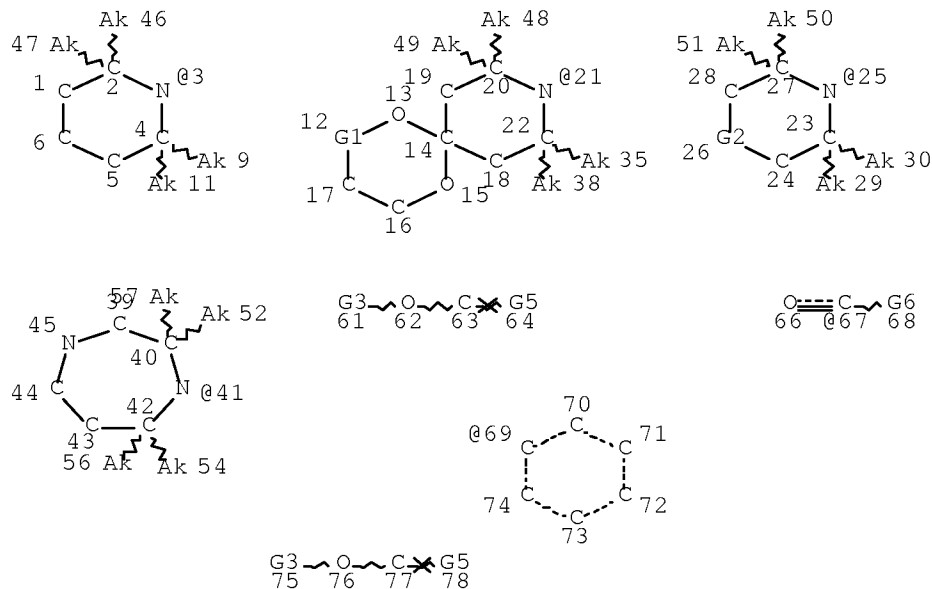


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 VAR G3=3/21/25/41/59
 VAR G4=65/CB
 VAR G5=67/69
 VAR G6=O/N
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 CONNECT IS E1 RC AT 65
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 63

STEREO ATTRIBUTES: NONE

L11 1865 SEA FILE=REGISTRY SSS FUL L9 AND L6
 L12 22 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND L2
 L13 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L12
 L14 785 SEA FILE=HCAPLUS ABB=ON PLU=ON L11
 L18 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND CLAY?
 L20 355 SEA FILE=HCAPLUS ABB=ON PLU=ON L14(L) POLYMER?
 L22 343 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 AND (PLASTIC? OR
 POLYMER?)/SC, SX
 L23 272 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND (1840-2004)/PRY,AY
 ,PY
 L24 STR



REP G1=(0-1) CH2
 VAR G2=O/N
 VAR G3=3/21/25/41
 VAR G5=67/69
 VAR G6=O/N

NODE ATTRIBUTES:

NSPEC IS RC AT 63
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 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I
 NUMBER OF NODES IS 63

STEREO ATTRIBUTES: NONE

L26 162 SEA FILE=REGISTRY SUB=L11 SSS FUL L24
 L27 82 SEA FILE=HCAPLUS ABB=ON PLU=ON L26
 L28 38 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND L23
 L29 234 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 NOT L27
 L30 QUE ABB=ON PLU=ON CLAY? OR BENTONIT? OR CERAMIC? OR PH
 YLOSILICAT? OR MONTMORILLONIT? OR TONSTEIN? OR KAOLINIT?
 OR MONTMORILLONITE SMECTIT? OR ILLIT? OR CHLORIT?
 L31 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND L30

10/519,030

L32 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND L30
 L33 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 OR (L31 OR L32)
 L34 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND POLYMER?(3A) (MATRI
 X? OR MATRIC?)
 L35 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND POLYMER?(3A) (MATRI
 X? OR MATRIC?)
 L36 7 SEA FILE=HCAPLUS ABB=ON PLU=ON (L33 OR L34 OR L35)
 L37 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L13 OR L36
 L38 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 NOT L37
 L39 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND POLYMER?(3A) (MATRI
 X? OR MATRIC?)
 L40 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 OR L39
 L41 47 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 OR L40

=> d l41 1-47 ibib ed abs hitstr hitind

L41 ANSWER 1 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1326104 HCAPLUS Full-text

DOCUMENT NUMBER: 148:101046

TITLE: Precise surface structure control of inorganic
 solid and metal oxide nanoparticles through
 surface-initiated radical polymerization

AUTHOR(S): Kobayashi, Motoyasu; Matsuno, Ryosuke; Otsuka,
 Hideyuki; Takahara, Atsushi

CORPORATE SOURCE: Institute for Materials Chemistry and Engineering,
 Graduate School of Engineering, Kyushu University,
 Hakozaki, Higashi-ku, Fukuoka, 812-8581, Japan

SOURCE: Science and Technology of Advanced Materials
 (2006), 7(7), 617-628

CODEN: STAMCV; ISSN: 1468-6996

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

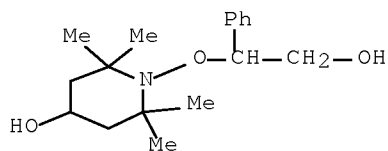
ED Entered STN: 19 Dec 2006

AB Surface-initiated radical polymerization was carried out to modify the surface
 of inorg. solid and metal oxide nanoparticles. Novel (inorg.
 nanoparticles/polymer) nanocomposites were prepared through a direct polymer
 grafting reaction from the surfaces of magnetite (Fe₃O₄) (d=10 and 25 nm) and
 titanium oxide (TiO₂) (d=15 nm) nanoparticles. The initiator for nitroxide-
 mediated radical polymerization with a phosphoric acid group was chemisorbed
 onto the nanoparticles and gave controlled polystyrene (PS) and poly(3-
 vinylpyridine) (P3VP) graft layers on their surfaces. The PS- and P3VP-
 modified nanoparticles were finely dispersed in organic solvents, whereas
 protonated P3VP-modified magnetite nanoparticles were dispersed in aqueous
 phase. The fine dispersion of nanoparticles in the polymer matrix was
 confirmed by microscopic observation. In order to realize tribol. control,
 atom transfer radical polymerization of (2,2-dimethyl-1,3-dioxolan-4-yl)methyl
 methacrylate was also carried out from an immobilized initiator on a flat
 silicon wafer, resulting in a high-d. polymer brush that was subsequently
 converted to a hydrophilic polymer brush consisting of 2,3-dihydroxypropyl
 methacrylate units. The poly(2,3-dihydroxypropyl methacrylate) brush-
 immobilized surface showed a low dynamic friction coefficient in water due to
 the highly stable hydrophilicity.

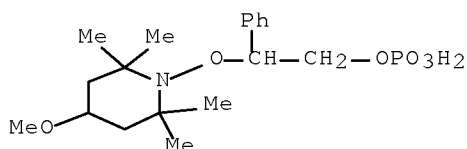
IT 183959-05-9
 (surface modification of inorg. solid and metal oxide nanoparticles
 through surface-initiated radical polymerization)

RN 183959-05-9 HCAPLUS

CN 4-Piperidinol, 1-(2-hydroxy-1-phenylethoxy)-2,2,6,6-tetramethyl- (CA
 INDEX NAME)



IT 491588-88-6
 (surface modification of inorg. solid and metal oxide nanoparticles
 through surface-initiated radical polymerization)
 RN 491588-88-6 HCAPLUS
 CN Benzeneethanol, β -[(4-methoxy-2,2,6,6-tetramethyl-1-
 piperidinyl)oxy]-, 1-(dihydrogen phosphate) (CA INDEX NAME)



CC 35-8 (Chemistry of Synthetic High Polymers)
 IT 7787-70-4, Cuprous bromide 183959-05-9
 (surface modification of inorg. solid and metal oxide nanoparticles
 through surface-initiated radical polymerization)
 IT 491588-88-6
 (surface modification of inorg. solid and metal oxide nanoparticles
 through surface-initiated radical polymerization)
 REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 2 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:632708 HCAPLUS Full-text
 DOCUMENT NUMBER: 145:231158
 TITLE: Exfoliated Block Copolymer/Silicate Nanocomposites
 by One-Pot, One-Step in-Situ Living Polymerization
 from Silicate-Anchored Multifunctional Initiator
 AUTHOR(S): Di, Jianbo; Sogah, Dotsevi Y.
 CORPORATE SOURCE: Baker Laboratory, Department of Chemistry and
 Chemical Biology, Cornell University, Ithaca, NY,
 14853-1301, USA
 SOURCE: Macromolecules (2006), 39(15), 5052-5057
 CODEN: MAMOBX; ISSN: 0024-9297
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 30 Jun 2006

AB Poly(styrene-*b*-caprolactone)/silicate nanocomposites were prepared via one-
 pot, one-step in-situ living polymerization from a silicate-anchored
 bifunctional initiator. The random dispersion of the silicate layers in the
 polymer matrix was confirmed by both XRD and STEM. The polymer chains were

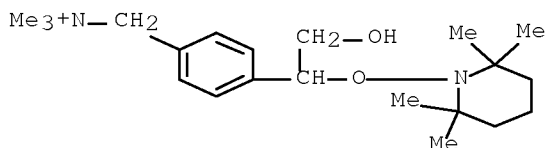
attached to the surface of the silicate layers at the junction between the two blocks. SEC and NMR confirmed the block structure of the polymer. Through simultaneous incorporation of the initiator and benzyltrimethylammonium salt as a noninitiator into the silicate nanocomposites containing higher mol. weight polymers were obtained. The mol. wts. of the polymers and the silicate content of the nanocomposites were also controlled. Characterization by XRD and DSC showed that the poly(caprolactone) segment existed in a crystalline state.

IT 887369-62-2P

(ATRP initiator, clay anchored; preparation of multifunctional initiator for living polymerization to prepare exfoliated block copolymer/silicate nanocomposites)

RN 887369-62-2 HCAPLUS

CN Benzenemethanaminium, 4-[2-hydroxy-1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-N,N,N-trimethyl-, chloride (1:1) (CA INDEX NAME)



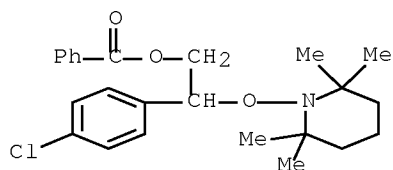
IT 196930-68-4

(preparation of multifunctional initiator for living polymerization to prepare

exfoliated block copolymer/silicate nanocomposites)

RN 196930-68-4 HCAPLUS

CN Benzeneethanol, 4-chloro-β-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, benzoate (ester) (9CI) (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 35

IT 887369-62-2P

(ATRP initiator, clay anchored; preparation of multifunctional initiator for living polymerization to prepare exfoliated block copolymer/silicate nanocomposites)

IT 1318-93-ODP, Montmorillonite, sodium-exchanged, intercalation product with ε-Caprolactone-styrene diblock copolymer 725712-80-1DP, ε-Caprolactone-styrene diblock

10/519,030

copolymer, intercalation product with sodium-exchanged
montmorillonite

(exfoliated block copolymer/silicate nanocomposites by one-pot,
one-step in-situ living polymerization from silicate-anchored
multifunctional initiator)

IT 75-50-3, Trimethylamine, reactions 196930-68-4

(preparation of multifunctional initiator for living polymerization to
prepare

exfoliated block copolymer/silicate nanocomposites)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 3 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:168082 HCAPLUS Full-text

DOCUMENT NUMBER: 144:239249

TITLE: Stabilized body care products, household products,
textiles and fabrics

INVENTOR(S): Lupia, Joseph A.; Suhadolnik, Joseph; Wood, Mervin
G.; Martin, Wanda H.

PATENT ASSIGNEE(S): Switz.

SOURCE: U.S. Pat. Appl. Publ., 34 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20060040836	A1	20060223	US 2005-201377	20050810
WO 2006021526	A1	20060302	WO 2005-EP53990	20050815
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1781246	A1	20070509	EP 2005-775912	20050815
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
CN 101043871	A	20070926	CN 2005-80036232	20050815
JP 2008510769	T	20080410	JP 2007-528827	20050815
MX 200702105	A	20070330	MX 2007-2105	20070221
KR 2007046130	A	20070502	KR 2007-704163	20070222
IN 2007CN00758	A	20070824	IN 2007-CN758	20070222
PRIORITY APPLN. INFO.:			US 2004-603590P	P 20040823
			WO 2005-EP53990	W 20050815

OTHER SOURCE(S): MARPAT 144:239249

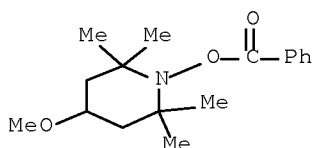
ED Entered STN: 23 Feb 2006

AB Disclosed are stabilized body care products, household products, textiles and
fabrics which comprise certain sterically hindered amine salt compds. Dyed

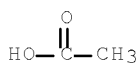
10/519,030

products and articles are effectively stabilized against color degradation. The products are for example skin-care products, hair-care products, dentifrices, cosmetics, laundry detergents and fabric softeners, non-detergent based fabric care products, household cleaners and textile-care products. A shampoo contained an oxypiperidine stabilizer derivative at 0.30%.

IT 876610-19-4
(stabilized body care products household products and textiles and fabrics)
RN 876610-19-4 HCAPLUS
CN Benzoic acid, 4-methoxy-2,2,6,6-tetramethyl-1-piperidiny1 ester, acetate (1:1) (CA INDEX NAME)
CM 1
CRN 876610-18-3
CMF C17 H25 N O3



CM 2
CRN 64-19-7
CMF C2 H4 O2



INCL 510130000; 510392000
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 40
IT Air fresheners
Antibacterial agents
Antioxidants
Bath preparations
Ceramics
Cosmetics
Fabric softeners
Fluorescent brighteners
Furniture
Hair preparations
Leather
Mouthwashes
Odor and Odorous substances
Perfumes
Photoprotectants
Shampoos

Skin

Stabilizing agents

Sunscreens

Surfactants

Textiles

(stabilized body care products household products and textiles and fabrics)

IT 58-95-7, Tocopherol acetate 65-85-0D, Benzoic acid, derivs.
 119-61-9D, Benzophenone, derivs. 273-02-9D, 2H-Benzotriazole,
 derivs. 290-87-9D, s-Triazine, derivs. 621-82-9D, Cinnamic acid,
 derivs. 15802-18-3D, α -Cyanoacrylic acid, derivs.
 37204-63-0D, Benzoxazinone, derivs. 92484-48-5 866180-86-1
 866180-87-2 866180-94-1 866180-95-2 866181-03-5 866181-06-8
 866181-07-9 866181-08-0 866181-09-1 866181-10-4 866181-11-5
 866181-12-6 866181-13-7 866181-15-9 866181-16-0 866181-17-1
 866181-18-2 866181-19-3 866181-23-9 866181-24-0 866181-25-1
 876610-13-8 876610-14-9 876610-15-0 876610-16-1 876610-17-2
 876610-19-4 876610-20-7 876610-21-8 876610-24-1
 876610-26-3 876610-28-5

(stabilized body care products household products and textiles and fabrics)

L41 ANSWER 4 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1311691 HCAPLUS Full-text

DOCUMENT NUMBER: 144:52058

TITLE: Alkoxyamines containing a radically polymerizable group

INVENTOR(S): Nesvadba, Peter; Kramer, Andreas; Bugnon, Lucienne

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005118651	A1	20051215	WO 2005-EP52260	20050517
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1749032	A1	20070207	EP 2005-742775	20050517
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EP 1749032	B1	20080227		
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1957001	A	20070502	CN 2005-80016626	20050517
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JP 2008500307	T	20080110	JP 2007-513909	20050517

AT 387464	T	20080315	AT 2005-742775	20050517
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US 20070232768	A1	20071004	US 2006-596436	20061114
			<--	
KR 2007024655	A	20070302	KR 2006-727402	20061227
			<--	
PRIORITY APPLN. INFO.:			EP 2004-102337	A 20040527
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			WO 2005-EP52260	W 20050517

OTHER SOURCE(S): MARPAT 144:52058

ED Entered STN: 16 Dec 2005

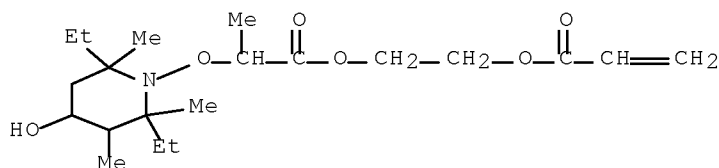
AB The instant invention relates to alkoxyamine initiators/regulators containing an ethylenically unsatd., radically polymerizable group. The compds. are useful for the preparation of complex polymeric architectures. Further aspects of the invention are a polymerizable composition and a polymerization process comprising the alkoxyamine initiators/regulators, a macroinitiator obtainable by the polymerization process and a process for polymerizing with the macroinitiator.

IT 871205-74-2P 871205-75-3P 871205-76-4P
 871205-77-5P 871205-78-6P 871205-79-7P
 871205-81-1P 871205-82-2P 871205-83-3P
 871205-84-4P 871205-85-5P 871205-86-6P
 871205-88-8P 871205-89-9P 871205-91-3P
 871205-92-4P

(alkoxyamines containing a radically polymerizable group)

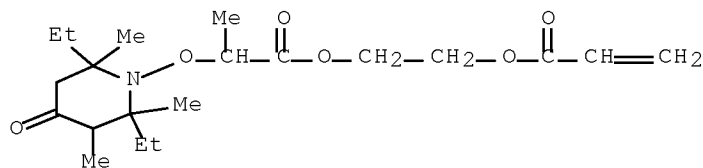
RN 871205-74-2 HCAPLUS

CN 2-Propenoic acid, 2-[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropoxy]ethyl ester (CA INDEX NAME)



RN 871205-75-3 HCAPLUS

CN 2-Propenoic acid, 2-[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropoxy]ethyl ester (CA INDEX NAME)

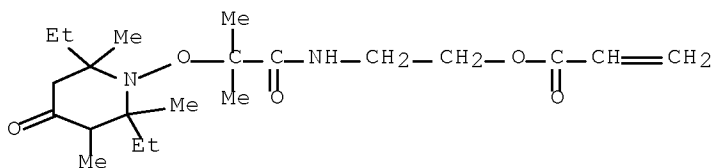


RN 871205-76-4 HCAPLUS

CN 2-Propenoic acid, 2-[[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-

10/519,030

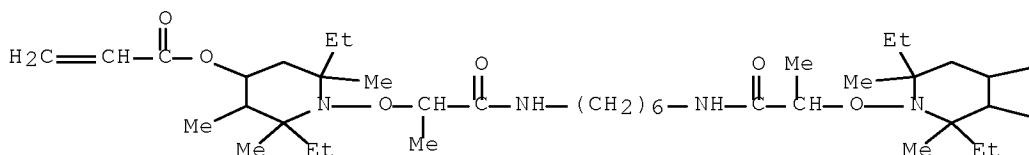
piperidinyl)oxy]-2-methyl-1-oxopropyl]amino]ethyl ester (CA INDEX NAME)



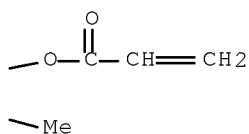
RN 871205-77-5 HCAPLUS

CN 2-Propenoic acid, 1-[2-[[6-[[2-[[2,6-diethyl-2,3,6-trimethyl-4-[(1-oxo-2-propen-1-yl)oxy]-1-piperidinyl]oxy]-1-oxopropyl]amino]hexyl]amino]-1-methyl-2-oxoethoxy]-2,6-diethyl-2,3,6-trimethyl-4-piperidinyl ester (CA INDEX NAME)

PAGE 1-A

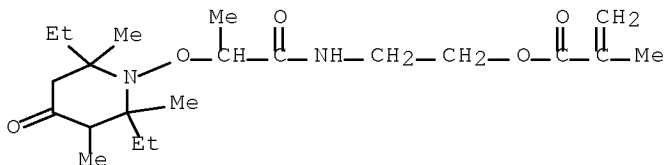


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RN 871205-78-6 HCAPLUS

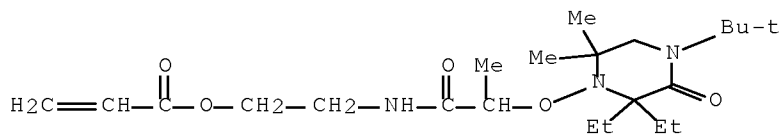
CN 2-Propenoic acid, 2-methyl-, 2-[[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropyl]amino]ethyl ester (CA INDEX NAME)



RN 871205-79-7 HCAPLUS

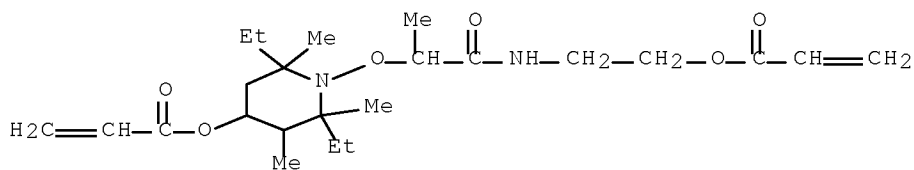
10/519,030

CN 2-Propenoic acid, 2-[[2-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]-1-oxopropyl]amino]ethyl ester (CA INDEX NAME)



RN 871205-81-1 HCAPLUS

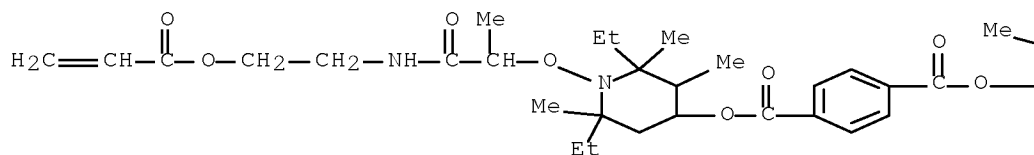
CN 2-Propenoic acid, 2,6-diethyl-2,3,6-trimethyl-1-[1-methyl-2-oxo-2-[[2-[(1-oxo-2-propen-1-yl)oxy]ethyl]amino]ethoxy]-4-piperidinyl ester (CA INDEX NAME)



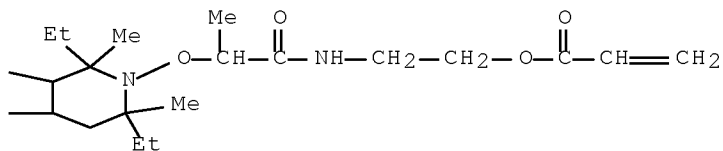
RN 871205-82-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, 1,4-bis[2,6-diethyl-2,3,6-trimethyl-1-[1-methyl-2-oxo-2-[[2-[(1-oxo-2-propen-1-yl)oxy]ethyl]amino]ethoxy]-4-piperidinyl] ester (CA INDEX NAME)

PAGE 1-A



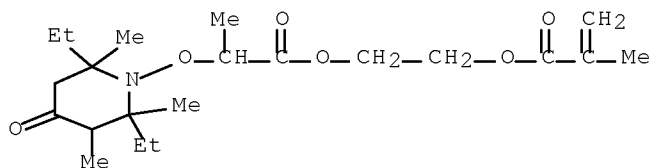
PAGE 1-B



10/519,030

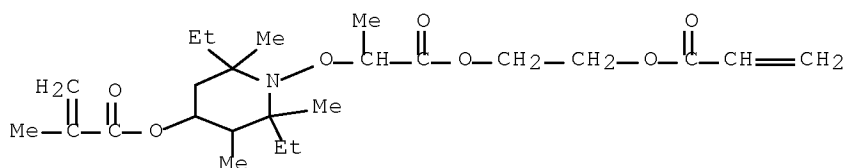
RN 871205-83-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropoxy]ethyl ester (CA INDEX NAME)



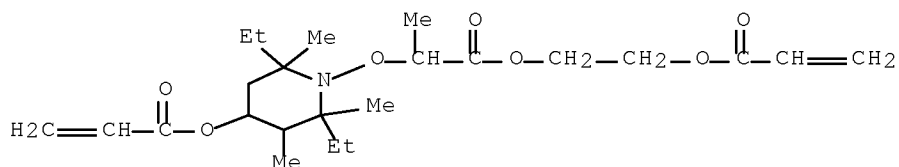
RN 871205-84-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,6-diethyl-2,3,6-trimethyl-1-[1-methyl-2-oxo-2-[2-[(1-oxo-2-propen-1-yl)oxy]ethoxy]ethoxy]-4-piperidinyl ester (CA INDEX NAME)



RN 871205-85-5 HCAPLUS

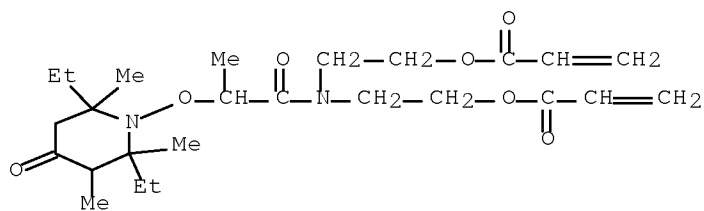
CN 2-Propenoic acid, 2,6-diethyl-2,3,6-trimethyl-1-[1-methyl-2-oxo-2-[2-[(1-oxo-2-propen-1-yl)oxy]ethoxy]ethoxy]-4-piperidinyl ester (CA INDEX NAME)



RN 871205-86-6 HCAPLUS

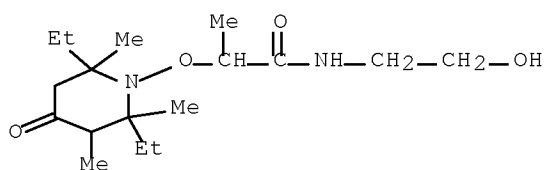
CN 2-Propenoic acid, [[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)

10/519,030



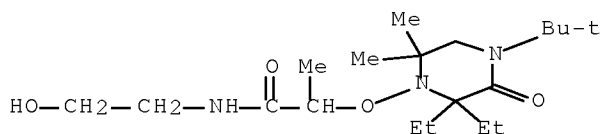
RN 871205-88-8 HCAPLUS

CN Propanamide, 2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyloxy)-N-(2-hydroxyethyl)- (CA INDEX NAME)



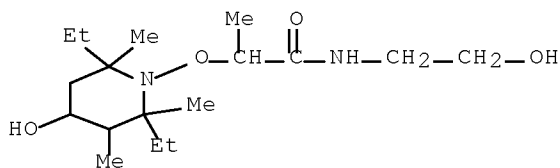
RN 871205-89-9 HCAPLUS

CN Propanamide, 2-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]-N-(2-hydroxyethyl)- (CA INDEX NAME)



RN 871205-91-3 HCAPLUS

CN Propanamide, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyloxy)-N-(2-hydroxyethyl)- (CA INDEX NAME)

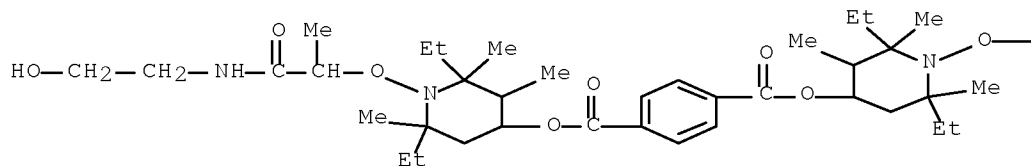


RN 871205-92-4 HCAPLUS

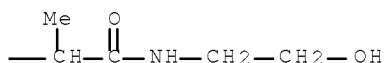
CN 1,4-Benzenedicarboxylic acid, 1,4-bis[2,6-diethyl-1-[2-[(2-hydroxyethyl)amino]-1-methyl-2-oxoethoxy]-2,3,6-trimethyl-4-

piperidinyl] ester (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

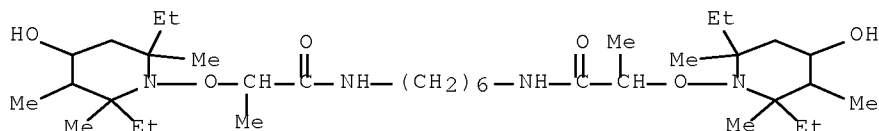


IT 485844-70-0

(alkoxyamines containing a radically polymerizable group)

RN 485844-70-0 HCAPLUS

CN Propanamide, N,N'-1,6-hexanediylbis[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



IC ICM C08F004-00

ICS C07D211-94; C07D241-08; C07F009-40

CC 35-2 (Chemistry of Synthetic High Polymers)

IT 42275-81-0P 639809-62-4P 756490-05-8P 871205-74-2P

871205-75-3P 871205-76-4P 871205-77-5P

871205-78-6P 871205-79-7P 871205-80-0P

871205-81-1P 871205-82-2P 871205-83-3P

871205-84-4P 871205-85-5P 871205-86-6P

871205-88-8P 871205-89-9P 871205-90-2P

871205-91-3P 871205-92-4P

(alkoxyamines containing a radically polymerizable group)

IT 100-20-9, Terephthaloylchloride 141-43-5, Ethanolamine, reactions
 814-68-6, Acryloylchloride 2736-37-0, Isobutyrylbromide 3030-47-5
 17639-93-9, 2-Chloropropionic acid methylester 51210-48-1
 61746-17-6 188065-73-8 188526-94-5 264279-93-8
 485844-70-0 871205-87-7

(alkoxyamines containing a radically polymerizable group)

REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 5 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:15040 HCAPLUS Full-text

DOCUMENT NUMBER: 142:261830

TITLE: Multi-armed, TEMPO-functionalized unimolecular
 initiators for starburst dendrimer synthesis via
 stable free radical polymerization. 2. Tris
 (1,3,5)benzyloxy unimers

AUTHOR(S): Ghani, Mohmad Asri Abd; Abdallah, Dalia; Kazmaier,
 Peter M.; Keoshkerian, Barkev; Buncel, Erwin

CORPORATE SOURCE: Department of Chemistry, Queen's University,
 Kingston, ON, K7L 3N6, Can.

SOURCE: Canadian Journal of Chemistry (2004),
 82(9), 1403-1412

CODEN: CJCHAG; ISSN: 0008-4042

PUBLISHER: National Research Council of Canada

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:261830

ED Entered STN: 07 Jan 2005

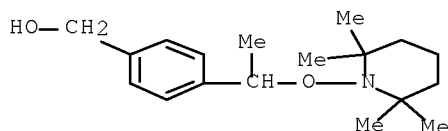
AB The synthesis of the trifunctionalized TEMPO-modified unimol. initiators,
 unimers I, II, and III is described. Unimer I was prepared via an SN2 type
 Williamson ether coupling of 1,3,5- tris(iodomethyl)benzene with a TEMPO-
 containing ethylbenzene hydroxy derivative The synthesis of unimer II,
 however, was accomplished through SN1 reaction of 1,3,5-
 tris(bromomethyl)benzene with the hydroxy-ethylbenzene TEMPO derivative in the
 presence of silver triflate. Synthesis of unimer III started from
 phloroglucinol and an SNAr reaction with 1-fluoro-4-nitrobenzene, followed by
 reduction to the amino compound and Schiff base formation with the TEMPO-
 derivatized aromatic aldehyde. Stable free radical polymerization (SFRP) of
 styrene and acetoxystyrene with unimer I are also described with mol. wts. and
 polydispersities reported. It is concluded that the SFRP of styrene with a
 triradical initiator meets the requirements of a living system.

IT 209550-24-3P 372522-45-7P 845745-22-4P
 845745-23-5P

(preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol.
 initiators for radical polymerization of styrene and
 acetoxystyrene)

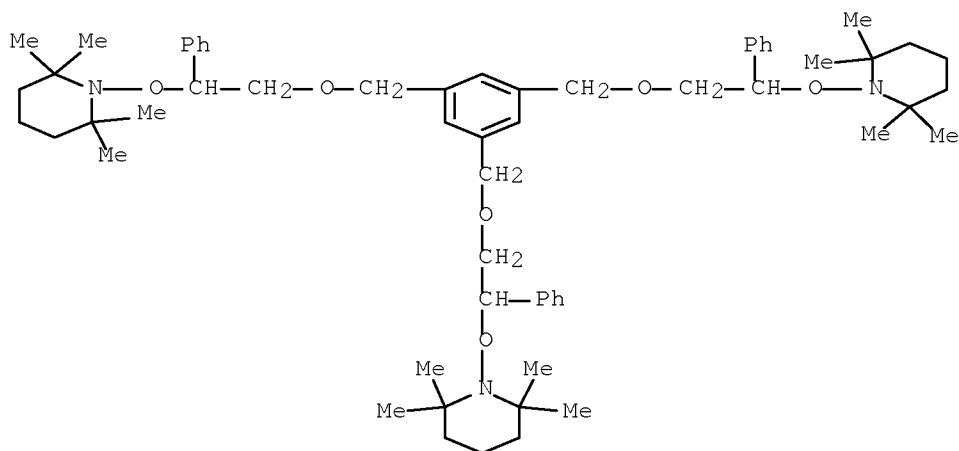
RN 209550-24-3 HCAPLUS

CN Benzenemethanol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-
 (CA INDEX NAME)



RN 372522-45-7 HCAPLUS

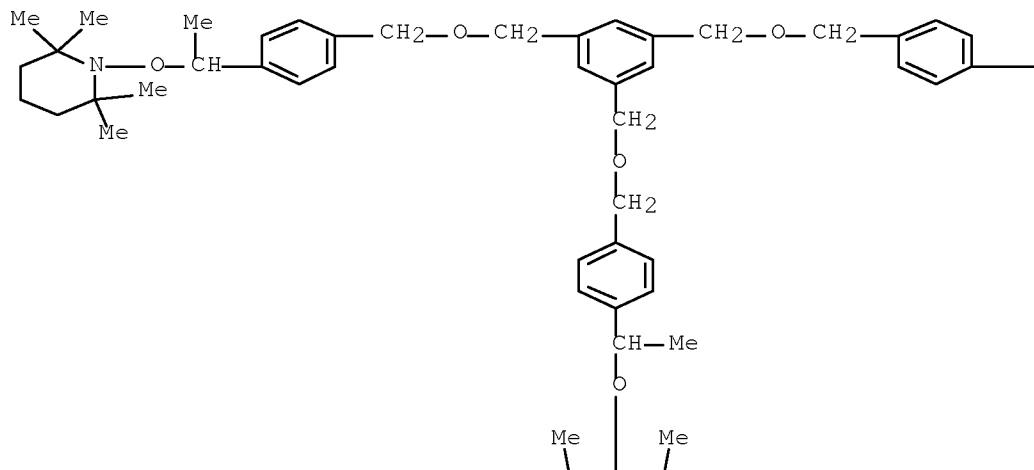
CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris[methyleneoxy(1-phenyl-2,1-
 ethanediyl)oxy]]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



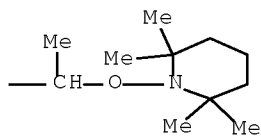
RN 845745-22-4 HCAPLUS

CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris(methyleneoxymethylene-4,1-phenyleneethylideneoxy)]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

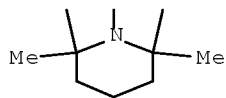
PAGE 1-A



PAGE 1-B



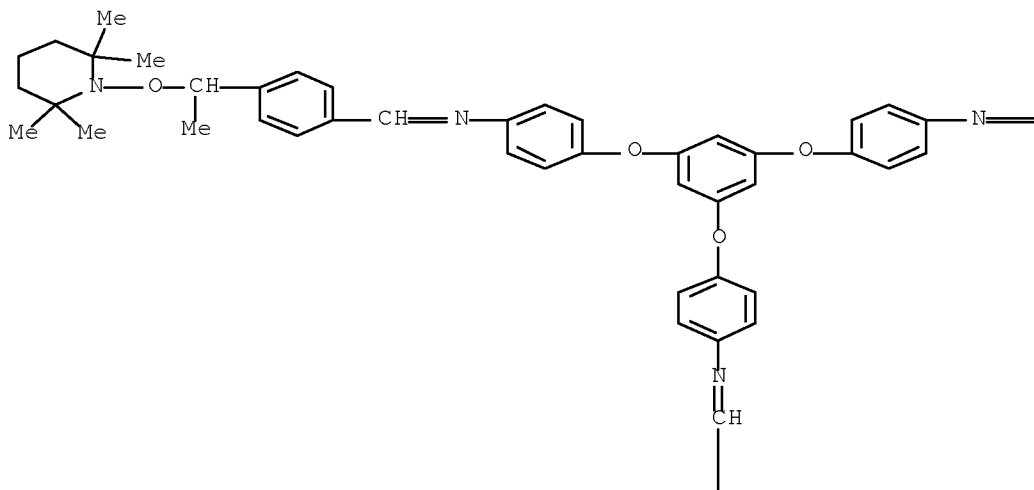
PAGE 2-A



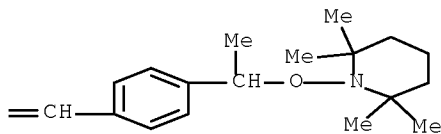
RN 845745-23-5 HCAPLUS

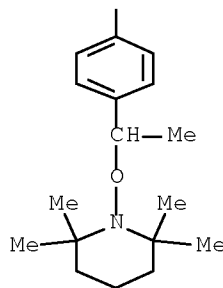
CN Benzenamine, 4,4',4''-[1,3,5-benzenetriyltris(oxy)]tris[N-[[4-[1-
 [(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl]methylene]- (9CI)
 (CA INDEX NAME)

PAGE 1-A

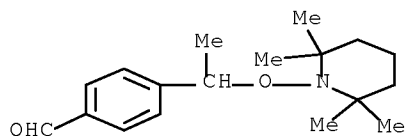


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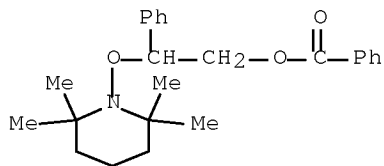




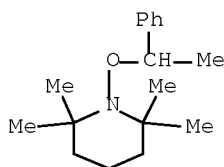
IT 209550-23-2
 (preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol.
 initiators for radical polymerization of styrene and
 acetoxystyrene)
 RN 209550-23-2 HCAPLUS
 CN Benzaldehyde, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-
 (CA INDEX NAME)



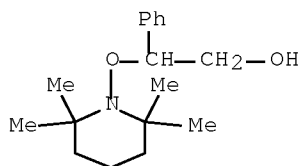
IT 81913-53-3P 154554-67-3P 161776-41-6P
 (preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol.
 initiators for radical polymerization of styrene and
 acetoxystyrene)
 RN 81913-53-3 HCAPLUS
 CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-,
 1-benzoate (CA INDEX NAME)



RN 154554-67-3 HCAPLUS
 CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



RN 161776-41-6 HCAPLUS
 CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA
 INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
 IT 209550-24-3P 372522-45-7P 845745-22-4P
 845745-23-5P
 (preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol.
 initiators for radical polymerization of styrene and
 acetoxystyrene)
 IT 94-36-0, BPO, reactions 100-41-4, Ethylbenzene, reactions
 100-42-5, Styrene, reactions 108-73-6, 1,3,5-Trihydroxybenzene
 350-46-9, 4-Fluoro-nitrobenzene 1074-61-9, 4-Vinylbenzyl alcohol
 1876-22-8, Di-tert-butylperoxyoxalate 2564-83-2, TEMPO 18226-42-1,
 1,3,5-Tris(bromomethyl)benzene 90678-60-7, 1,3,5-
 Tris(iodomethyl)benzene 102852-91-5 209550-23-2
 (preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol.
 initiators for radical polymerization of styrene and
 acetoxystyrene)
 IT 81913-53-3P 102852-92-6P 154554-67-3P
 161776-41-6P
 (preparation of multi-armed, TEMPO-functionalized trisbenzyloxyunimol.
 initiators for radical polymerization of styrene and
 acetoxystyrene)
 REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 6 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2005:15039 HCAPLUS Full-text
 DOCUMENT NUMBER: 142:261829
 TITLE: Multi-armed, TEMPO-functionalized unimolecular
 initiators for starburst dendrimer synthesis via
 stable free radical polymerization. 1. Tri
 azofunctionalized unimer
 AUTHOR(S): Abdallah, Dalia; Ghani, Mohmad Asri Abd;
 Cunningham, Michael F.; Kazmaier, Peter M.;
 Keoshkerian, Barkev; Buncel, Erwin

CORPORATE SOURCE: Department of Chemistry, Queen's University,
Kingston, ON, K7L 3N6, Can.

SOURCE: Canadian Journal of Chemistry (2004),
82(9), 1393-1402
CODEN: CJCHAG; ISSN: 0008-4042

PUBLISHER: National Research Council of Canada

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:261829

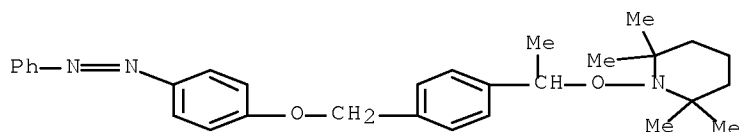
ED Entered STN: 07 Jan 2005

AB The synthesis of azobenzene-functionalized multi-armed unimol. initiators or "unimers" that can be polymerized using styrene or styrenic derivs. via TEMPO (2,2,6,6-tetramethylpiperidenyl-1-oxyl) mediated stable free radical polymerization (SFRP) is described. The unimers are composed of an azobenzene-functionalized core and a TEMPO-modified unit. Homopolymers and copolymers of styrene and acetoxystyrene were synthesized using the mono- and trifunctionalized unimers as initiators under bulk conditions with average mol. wts. and polydispersities reported. The studies lay the groundwork for further investigations involving SFRP towards building a light harvesting system by introducing chromophores onto the polymer chains for capturing light and thence transferring it to the azobenzene core.

IT 845728-31-6P 845728-32-7P 845728-34-9P
(multi-armed, TEMPO-functionalized unimol. initiators for starburst dendrimer synthesis via stable radical polymerization)

RN 845728-31-6 HCAPLUS

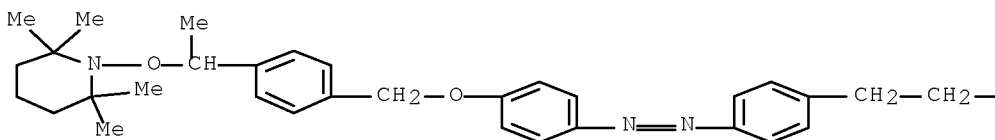
CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-[[4-(2-phenyldiazenyl)phenoxy]methyl]phenyl]ethoxy]- (CA INDEX NAME)

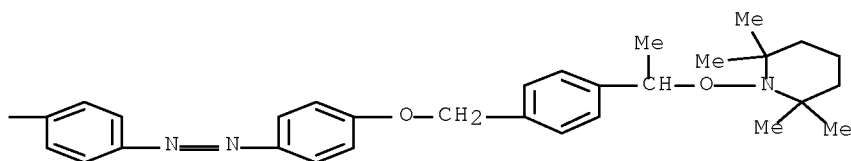


RN 845728-32-7 HCAPLUS

CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenyleneazo-4,1-phenyleneoxymethylene-4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

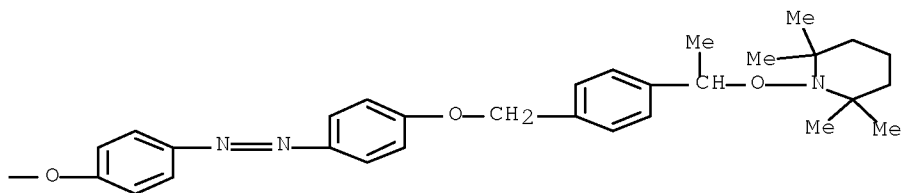
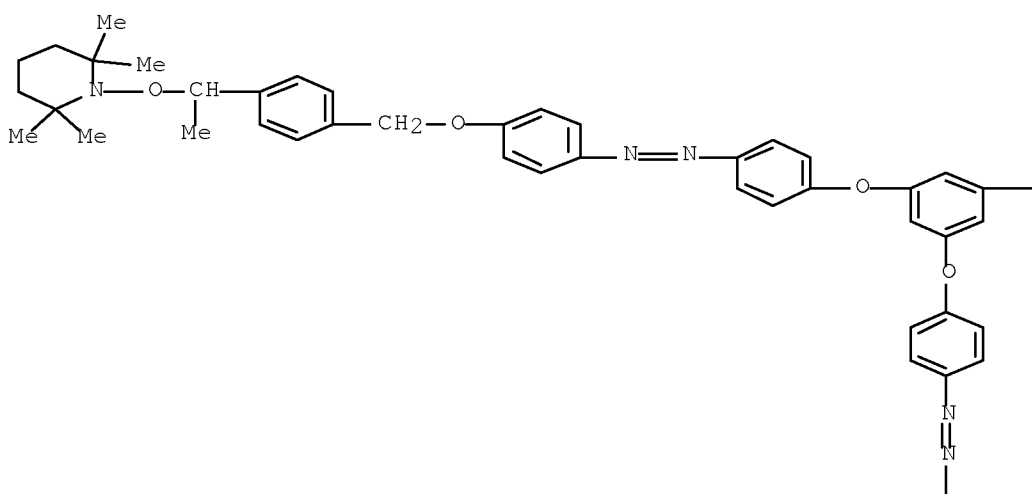
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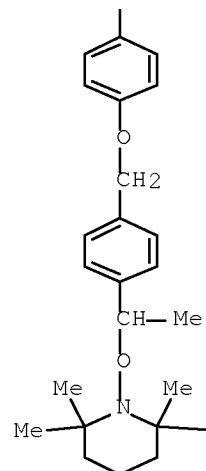


RN 845728-34-9 HCAPLUS

CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris(oxy-4,1-phenyleneazo-4,1-phenyleneoxymethylene-4,1-phenyleneethylideneoxy)]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



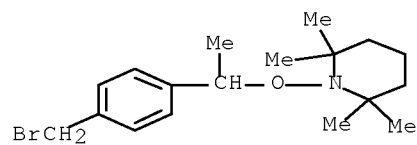
PAGE 2-A



PAGE 2-B

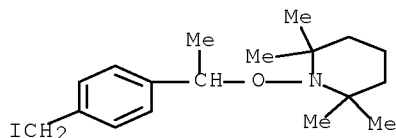
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IT 492446-76-1P 845728-30-5P
 (multi-armed, TEMPO-functionalized unimol. initiators for starburst
 dendrimer synthesis via stable radical polymerization)
 RN 492446-76-1 HCAPLUS
 CN Piperidine, 1-[1-[4-(bromomethyl)phenyl]ethoxy]-2,2,6,6-tetramethyl-
 (CA INDEX NAME)



10/519,030

RN 845728-30-5 HCAPLUS
CN Piperidine, 1-[1-[4-(iodomethyl)phenyl]ethoxy]-2,2,6,6-tetramethyl-
(CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
IT 1876-22-8P, Di-tert-Butyl peroxyoxalate 845728-31-6P
845728-32-7P 845728-34-9P
(multi-armed, TEMPO-functionalized unimol. initiators for starburst
dendrimer synthesis via stable radical polymerization)
IT 768-59-2P 57825-30-6P 90264-99-6P 102852-91-5P 102852-92-6P
492446-76-1P 845728-30-5P 845728-33-8P
(multi-armed, TEMPO-functionalized unimol. initiators for starburst
dendrimer synthesis via stable radical polymerization)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 7 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:698181 HCAPLUS Full-text
DOCUMENT NUMBER: 141:207985
TITLE: High-gloss rubber-modified monovinylidene aromatic
polymers produced by mass polymerization process
INVENTOR(S): Vanspeybroeck, Rony S.; Ceraso, Joseph M.;
Galobardes, Mercedes R.; Bouquet, Gilbert; Maes,
Dominique
PATENT ASSIGNEE(S): Dow Global Technologies Inc., USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004072172	A2	20040826	WO 2004-US978	20040115

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WO 2004072172 A3 20071227
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CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
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MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT,
BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, EP, OA

10/519,030

CA 2515038	A1	20040826	CA 2004-2515038	20040115
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EP 1618148	A2	20060125	EP 2004-702520	20040115
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 101006112	A	20070725	CN 2004-80003684	20040115
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JP 2007525544	T	20070906	JP 2006-502831	20040115
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US 20060122331	A1	20060608	US 2005-541925	20050712
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US 7115684	B2	20061003		
PRIORITY APPLN. INFO.:			US 2003-445557P	P 20030205
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			WO 2004-US978	W 20040115
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ED Entered STN: 26 Aug 2004

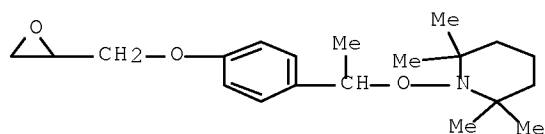
AB The mass polymerized rubber-modified polymeric composition comprises a continuous matrix phase of a polymer of a monovinylidene aromatic monomer (e.g., styrene), and optionally, an ethylenically unsatd. nitrile monomer (e.g., acrylonitrile), and rubber particles dispersed in the matrix, wherein the rubber particles produced from a rubber component containing 5-100% functionalized diene rubber (e.g., styrene-butadiene block rubber terminated with 8,8,10,10-tetramethyl-9-{1-(4-oxiranylmethoxy-phenyl)-ethoxy}1,5-dioxo-9-aza-spiro{5.5}undecane). The composition has (a) volume average rubber particle size 0.15-0.35 μ , (b) total rubber phase volume 12-45%, based on the total volume of the combination of the matrix phase and the rubber particles; (c) partial rubber phase volume 2-20% characterized by rubber particles having volume average particle size >0.40 μ ; and (d) crosslinked rubber fraction \geq 85%, based on the total weight of the rubber particles.

IT 243972-05-6D, reaction products with block rubber
434898-80-3D, reaction products with block rubber
437994-48-4D, reaction products with styrene-butadiene block rubber

(high-gloss rubber-modified monovinylidene aromatic polymers produced by mass polymerization process)

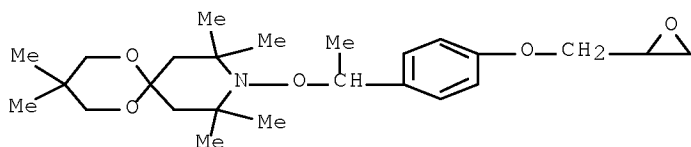
RN 243972-05-6 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



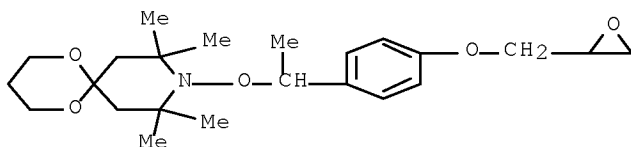
RN 434898-80-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3,8,8,10,10-hexamethyl-9-[1-[4-(2-oxiranylmethoxy)phenyl]ethoxy]- (CA INDEX NAME)



RN 437994-48-4 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8,10,10-tetramethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



IC ICM C08L

CC 37-6 (Plastics Manufacture and Processing)

IT 2564-83-2D, TEMPO, reaction products with block rubber
 243972-05-6D, reaction products with block rubber
 434898-80-3D, reaction products with block rubber
 437994-48-4D, reaction products with styrene-butadiene block rubber
 (high-gloss rubber-modified monovinylidene aromatic polymers produced by mass polymerization process)

L41 ANSWER 8 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:696403 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 141:226795

TITLE: Preparation of rubber reinforced monovinylidene aromatic polymers

INVENTOR(S): Bouquet, Gilbert; Vanspeybroeck, Rony S.

PATENT ASSIGNEE(S): Dow Global Technologies Inc., USA

SOURCE: PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004072136	A1	20040826	WO 2004-US962	20040115

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,

10/519,030

CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 CA 2515194 A1 20040826 CA 2004-2515194 20040115
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 EP 1592722 A1 20051109 EP 2004-702504 20040115
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 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 CN 1795218 A 20060628 CN 2004-80003681 20040115
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 JP 2006517002 T 20060713 JP 2006-502825 20040115
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 US 20060058465 A1 20060316 US 2005-543121 20050722
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 PRIORITY APPLN. INFO.: US 2003-445729P P 20030205
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 WO 2004-US962 W 20040115
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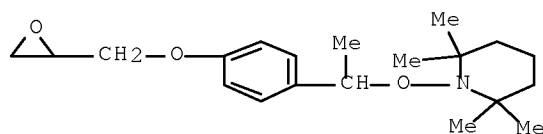
ED Entered STN: 26 Aug 2004

AB A rubber reinforced polymer having grafted rubber particles dispersed in polymer matrix, which has rubber particle size, distribution and morphol. controlled, is prepared by a mass/solution polymerization process of a vinyl aromatic monomer, such as styrene, and functionalized diene rubbers containing functional group capable of forming stable free radicals, such as TEMPO, or functional group capable of atom transfer radical polymerization or reversible addition-fragmentation chain transfer polymerization, in the presence of an initiator and a chain transfer agent. Rubber reinforced polymer with bimodal rubber particle size is obtained by conducting the polymerization in sep. reactor and then combining both reactor streams and continuing the polymerization. Thus, TEMPO-functionalized styrene-butadiene rubber, styrene, and acrylonitrile were polymerized in the presence of 1,1-di(t-butylperoxy)cyclohexane and N-dodecylmercaptan to obtain rubber-reinforced plastics.

IT 243972-05-6 434898-80-3
 (preparation of rubber reinforced monovinylidene aromatic polymers)

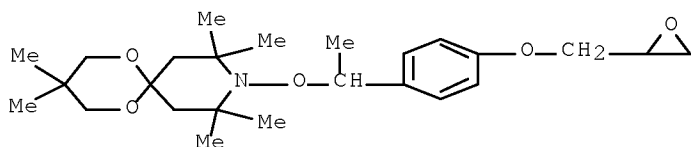
RN 243972-05-6 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



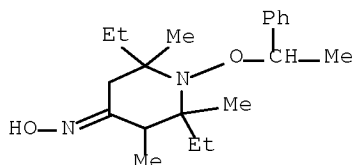
RN 434898-80-3 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3,8,8,10,10-hexamethyl-9-[1-[4-(2-oxiranylmethoxy)phenyl]ethoxy]- (CA INDEX NAME)



IC ICM C08F279-02
ICS C08F287-00
CC 39-15 (Synthetic Elastomers and Natural Rubber)
Section cross-reference(s): 37
IT 2564-83-2, TEMPO 3006-86-8, 1,1-Di(tert-butyl peroxy)cyclohexane
243972-05-6 434898-80-3
(preparation of rubber reinforced monovinylidene aromatic polymers
)

L41 ANSWER 9 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:535765 HCAPLUS Full-text
DOCUMENT NUMBER: 141:207557
TITLE: New 7-membered diazepanone alkoxyamines for
nitroxide-mediated radical polymerization
AUTHOR(S): Nesvadba, Peter; Bugnon, Lucienne; Sift, Rosemarie
CORPORATE SOURCE: Ciba Specialty Chemicals Incorporated, Basel,
CH-4002, Switz.
SOURCE: Journal of Polymer Science, Part A: Polymer
Chemistry (2004), 42(13), 3332-3341
CODEN: JPACEC; ISSN: 0887-624X
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 05 Jul 2004
AB The synthesis of new 7-membered diazepanone alkoxyamines [2,2,7,7-tetramethyl-1-(1-phenyl-ethoxy)-[1,4]diazepan-5-one (3) and 2,7-diethyl-2,3,7-trimethyl-1-(1-phenyl-ethoxy)-[1,4]diazepan-5-one (8)] through the Beckmann rearrangement of piperidin-4-one alkoxyamines was developed. Both 3 and 8 were evaluated as initiators and regulators for the nitroxide-mediated radical polymerization of styrene and Bu acrylate. 8, A sterically highly hindered alkoxyamine readily available as a crystalline solid, allowed the fast and controlled polymerization and preparation of polymers with low polydispersity indexes (1.2-1.4) up to a d.p. of about 100.
IT 478697-26-6P
(7-membered diazepanone alkoxyamines for nitroxide-mediated radical polymerization)
RN 478697-26-6 HCAPLUS
CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime
(CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)
 IT 51210-48-1P 61682-93-7P 122586-81-6P 244021-01-0P 264280-63-9P
 264280-71-9P 478697-26-6P 478697-55-1P

(7-membered diazepanone alkoxyamines for nitroxide-mediated radical polymerization)

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 10 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:430843 HCAPLUS Full-text

DOCUMENT NUMBER: 141:7653

TITLE: Preparation of hydroxy-vinyl-aromatic polymers or
 copolymers by anionic or controlled radical
 polymerization

INVENTOR(S): Kunimoto, Kazuhiko; Nesvadba, Peter; Kramer,
 Andreas

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004044017	A1	20040527	WO 2003-EP50793	20031105
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003301974	A1	20040603	AU 2003-301974	20031105
EP 1572758	A1	20050914	EP 2003-810997	20031105
EP 1572758	B1	20070718		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1711290	A	20051221	CN 2003-80103187	20031105
JP 2006506480	T	20060223	JP 2004-551039	20031105
AT 367406	T	20070815	AT 2003-810997	20031105
US 20060041080	A1	20060223	US 2005-533574	20050503
PRIORITY APPLN. INFO.:			EP 2002-405980	A 20021114
			WO 2003-EP50793	W 20031105

OTHER SOURCE(S): MARPAT 141:7653

ED Entered STN: 27 May 2004

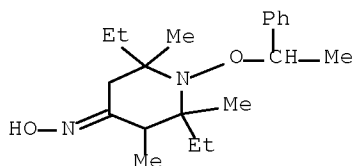
AB The hydroxy-vinyl-aromatic polymers in particular 4-hydroxystyrene polymers or copolymers are made by anionic or controlled radical polymerization of the resp. monomer, where the hydroxy functionality is blocked with a protective group which is subsequently removed in a hydrogenation process. The resulting

(co)polymers have a narrow polydispersity and are useful for manufacturing photoresists. Thus, 4-benzyloxystyrene (450 mmol) and 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)piperidin-4-one oxime (4.50 mmol) are heated to 130° and stirred for 6 h under Ar, cooled down to room temperature, dissolved in CH₂Cl₂ (120 mL), and precipitated in MeOH, giving polymer with Mn 9787, Mw/Mn 1.17, which was hydrogenated.

IT 478697-26-6P, 2,6-Diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)piperidine-4-one oxime
(hydroxyvinyl aromatic polymers or copolymers by anionic or controlled radical polymerization in the presence of stable free N radical and/or free radical initiator, transition metal)

RN 478697-26-6 HCAPLUS

CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime
(CA INDEX NAME)



IC ICM C08F012-22
ICS G03F007-039

CC 35-4 (Chemistry of Synthetic High Polymers)

IT 478697-26-6P, 2,6-Diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)piperidine-4-one oxime
(hydroxyvinyl aromatic polymers or copolymers by anionic or controlled radical polymerization in the presence of stable free N radical and/or free radical initiator, transition metal)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 11 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:140830 HCAPLUS Full-text

DOCUMENT NUMBER: 140:321838

TITLE: Nitroxide-mediated radical polymerization with bisaminoxy compounds as initiators - controlled biradical polymerization

AUTHOR(S): Bothe, Marc; Schmidt-Naake, Gudrun

CORPORATE SOURCE: Institut fuer Technische Chemie, Technische Universitaet Clausthal, Clausthal-Zellerfeld, D-38678, Germany

SOURCE: Macromolecular Chemistry and Physics (2004), 205(2), 208-216

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Feb 2004

AB The bisaminoxy compds. Bis-TEMPO and Bis-TIPNO derived from 2,2,6,6-tetramethyl-piperidine-1-oxyl (TEMPO) and 2,2,5-trimethyl-4-phenyl-3-azahexane-3-oxyl (TIPNO) were applied as "biradical initiators" for the nitroxide-mediated radical polymerization (NMRP) of styrene and Bu acrylate.

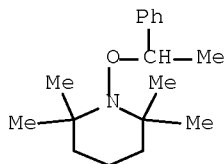
It was shown by comparison with analogous alkoxyamines as unimol. initiators and mixing expts. of mono- and biradical species, that in the case of the biradical initiators chain growth occurs at both sides under NMRP conditions. This enables a two-step synthesis of A-B-A-triblock copolymers. Kinetics and mol. mass development were studied for the controlled biradical polymerization of styrene at different initiator concns., temps., and with addition of acetic anhydride as accelerator. For the controlled biradical polymerization of Bu acrylate with Bis-TIPNO, the effect of added free nitroxide relative to the initiator concentration was studied. The poly(styrene-block-Bu acrylate-block-styrene) copolymers with higher block length prepared by this method show two glass transition temps., which indicates microphase separation of the polymer blocks.

IT 154554-67-3 596135-22-7

(nitroxide-mediated radical polymerization of Bu acrylate and styrene with bisaminoxy initiators)

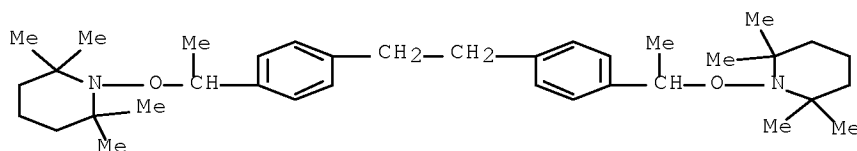
RN 154554-67-3 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



RN 596135-22-7 HCAPLUS

CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)

IT 154554-67-3 227000-59-1 596135-22-7 596135-24-9

(nitroxide-mediated radical polymerization of Bu acrylate and styrene with bisaminoxy initiators)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 12 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:76619 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 140:112181

TITLE: Manufacture of polymers having dissociative electron attachment groups and scission of the polymer main chains

INVENTOR(S): Ichikawa, Tsuneki; Koizumi, Hitoshi; Shimizu, Akira

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004026981	A	20040129	JP 2002-184301	20020625

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PRIORITY APPLN. INFO.: JP 2002-184301 20020625

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ED Entered STN: 30 Jan 2004

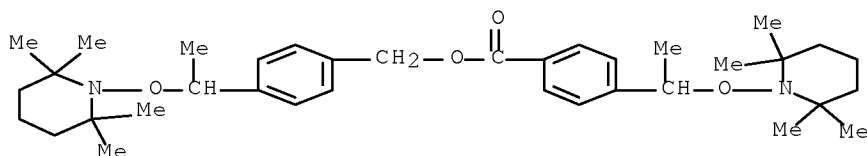
AB The polymers, useful for resists for radiation lithog., are manufactured by reaction of monomers capable of living polymerization with compds. having living polymerization initiating groups on both ends via dissociative electron attachment groups which cleave by attachment of dissociative electron. The polymer main chain is cut by irradiation of electromagnetic wave or particle beam having energy sufficient to ionize the mol. Thus, 4-[1-(2,2,6,6-tetramethylpiperidiny1-1-oxy)ethyl]benzyl alc. was esterified with 4-[1-(2,2,6,6-tetramethylpiperidiny1-1-oxy)ethyl]benzoic acid, then the resulting ester was added 2% to styrene and heated to 130°, when living radical polymerization reaction occurred. The polymer was cut in half by irradiation of γ -ray.

IT 647849-32-9P

(manufacture of living polymers having radiation-cleavable structure in main chain)

RN 647849-32-9 HCAPLUS

CN Benzoic acid, 4-[1-[(2,2,6,6-tetramethyl-1-piperidiny1)oxy]ethyl]-, [4-[1-[(2,2,6,6-tetramethyl-1-piperidiny1)oxy]ethyl]phenyl]methyl ester (CA INDEX NAME)



IC ICM C08F004-00

ICS C08F012-00; C08F020-00; C08J003-28; C08L101-00

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 25, 27, 74

IT 647849-32-9P

(manufacture of living polymers having radiation-cleavable structure in main chain)

L41 ANSWER 13 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:54261 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 140:94477

TITLE: Initiators for nitroxide-mediated polymerization based on azlactone or their ring-opened derivatives

INVENTOR(S): Fansler, Duane D.; Lewandowski, Kevin M.;

10/519,030

Wendland, Michael S.; Gaddam, Babu N.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: U.S., 11 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6680362	B1	20040120	US 2003-358767	20030205
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US 20040152853	A1	20040805	US 2003-726956	20031203
			<--	
US 6784265	B2	20040831		
WO 2004072139	A1	20040826	WO 2004-US1130	20040116
			<--	
WO 2004072139	A8	20050224		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1590387	A1	20051102	EP 2004-702949	20040116
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JP 2006516669	T	20060706	JP 2006-502858	20040116
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PRIORITY APPLN. INFO.: US 2003-358767 A3 20030205
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 WO 2004-US1130 W 20040116
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OTHER SOURCE(S): MARPAT 140:94477

ED Entered STN: 22 Jan 2004

AB A controlled radical polymerization initiator comprises
 $R_5ZCO(CH_2)_nCR_3R_4NHCOQCRI[(CH_2)_qX][CH_2CRI[QCONHCR_3R_4(CH_2)_nCOZR_5]]mONR_{22}$,
 wherein X is an H, an alkyl group, a cycloalkyl group, a heterocyclic group,
 an arenyl group, an aryl group, a nitrile, an acyl group or the residue of a
 free-radical initiator; R1 is H, an alkyl group, a cycloalkyl group, a
 heterocyclic group, an arenyl group or an aryl group; ON(R2)2 is the residue
 of an organonitroxide; R3 and R4 are each independently selected from an
 alkyl, a cycloalkyl group, an aryl group, an arenyl group, or R3 and R4 taken
 together with the carbon to which they are attached form a carbocyclic ring; Q
 is a linking group selected from a covalent bond, (CH2)o, CO2(CH2)o,
 $CO_2(CH_2CH_2O)_o$, CONR6(CH2)o, COS(CH2)o, where o is 1 to 12, and R6 is H, an
 alkyl group, a cycloalkyl group, an arenyl group, a heterocyclic group or an
 aryl group; each n is 0 or 1; m is 0 to 20; q is 0 or 1; Z is O, S or NR6,
 wherein R6 is H, an alkyl group, a cycloalkyl group, an arenyl group, a
 heterocyclic group or an aryl group; R5 is an organic or inorg. moiety and has
 a valency of p. The initiators have an azlactone or ring-opened azlactone
 moiety to provide telechelic (co)polymers. 4,4-Dimethyl-2-[1-(2,2,6,6-
 tetramethylpiperidin-1- yloxy)-ethyl]-4H-ox azol-5-one was prepared and used
 in polymerization of styrene.

IT 642479-67-2P

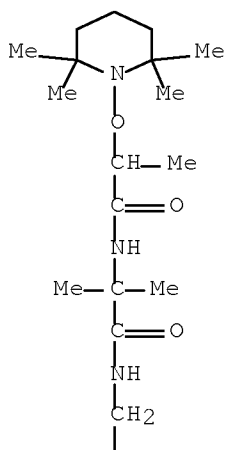
10/519,030

(initiators for nitroxide-mediated polymerization based on
azlactone or their ring-opened derivs.)

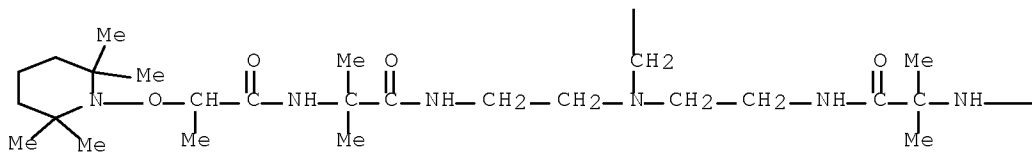
RN 642479-67-2 HCAPLUS

CN Propanamide, N,N',N''-(nitrilotri-2,1-ethanediyl)tris[2-methyl-2-[[1-oxo-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy]propyl]amino]- (9CI)
(CA INDEX NAME)

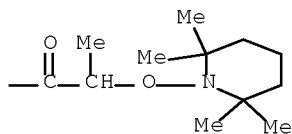
PAGE 1-A



PAGE 2-A



PAGE 2-B



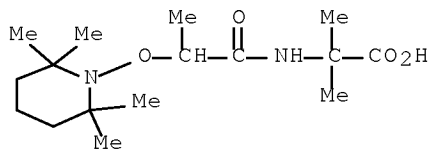
IT 642479-63-8P

(initiators for nitroxide-mediated polymerization based on
azlactone or their ring-opened derivs.)

RN 642479-63-8 HCAPLUS

CN Alanine, 2-methyl-N-[1-oxo-2-[(2,2,6,6-tetramethyl-1-

piperidinyl)oxy]propyl]- (CA INDEX NAME)



IC ICM C08F002-00
 INCL 526217000; 526222000; 526224000; 526265000; 526271000; 526287000;
 526291000; 526303100; 526304000; 526306000
 CC 35-3 (Chemistry of Synthetic High Polymers)
 IT 642479-67-2P
 (initiators for nitroxide-mediated polymerization based on
 azlactone or their ring-opened derivs.)
 IT 642479-59-2P 642479-61-6P 642479-63-8P
 (initiators for nitroxide-mediated polymerization based on
 azlactone or their ring-opened derivs.)
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 14 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:42401 HCAPLUS Full-text

DOCUMENT NUMBER: 140:236159

TITLE: Synthesis of Nanosized "Cored" Star Polymers

AUTHOR(S): Beil, James B.; Zimmerman, Steven C.

CORPORATE SOURCE: Department of Organic Chemistry, University of
 Illinois at Urbana Champaign, Urbana, IL, 61801,
 USA

SOURCE: Macromolecules (2004), 37(3), 778-787

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 19 Jan 2004

AB A synthetic approach to nanosized "cored" star polymers is reported. A
 5,10,15,20-tetrakis(4-carboxyphenyl)porphyrin core was functionalized with
 four 2,2,6,6-tetramethylpiperidinyl-1-oxy (TEMPO) initiating groups. Four-
 armed star copolymers of styrene and 4-hydroxystyrene were synthesized and
 functionalized with 3,5-di(3-buten-1-oxy) benzyl bromide groups but exhibited
 poor solubility. As an alternative, 5,10,15,20-tetrakis(3',5'-
 dihydroxyphenyl)porphyrin was functionalized with 2-bromo-2-methyl-propionyl
 groups capable of initiating atom transfer radical polymerization (ATRP).
 Copolymn. of the core initiator with 1-but-3-enyl-4-vinylbenzene and styrene
 at low conversion produced soluble eight-armed star block copolymers. Through
 the ring-closing metathesis (RCM) reaction, the alkene groups of the polymer
 were intramolecularly cross-linked. The ester groups linking the cross-linked
 polymer arms to the porphyrin core were hydrolyzed, producing a "cored" star
 polymer with a mol. weight of approx. 20 kDa and a polydispersity index (PDI)
 of 1.5.

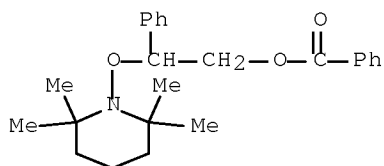
IT 81913-53-3

(in preparation of nanosized "Cored" star polymers)

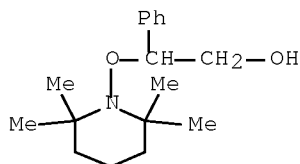
RN 81913-53-3 HCAPLUS

CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-,

1-benzoate (CA INDEX NAME)

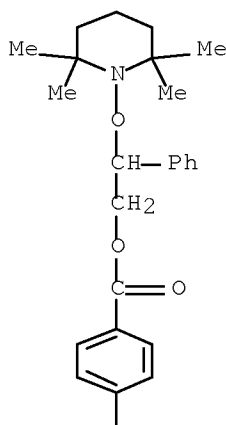


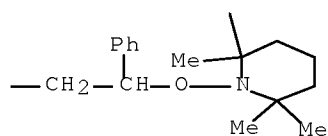
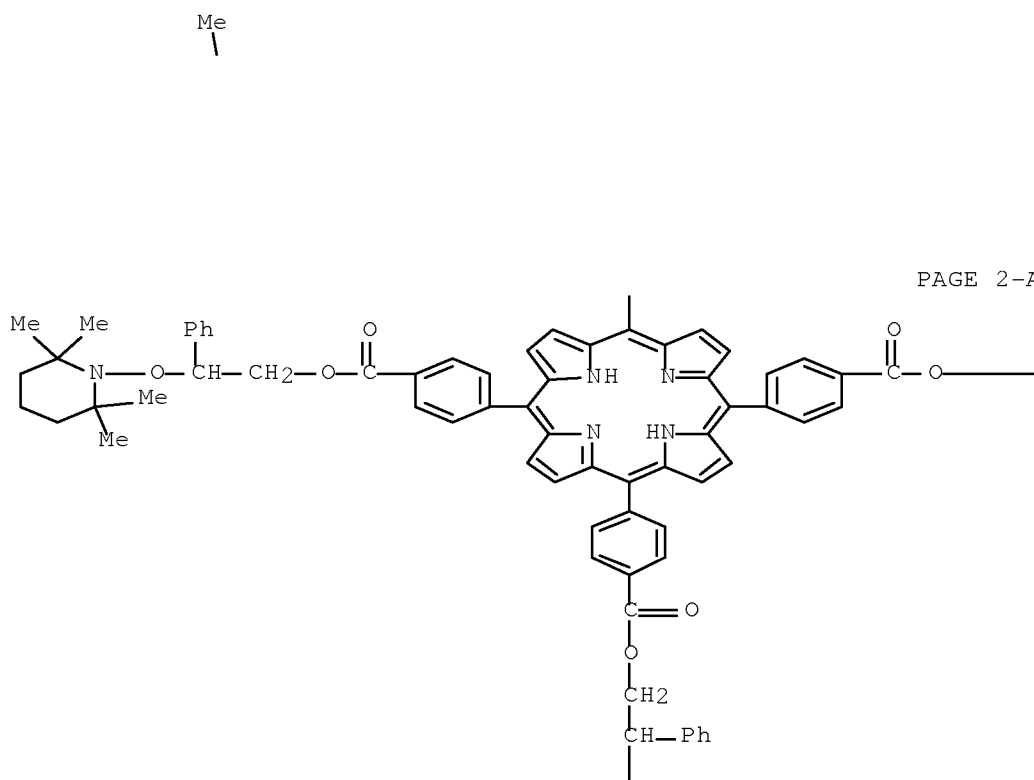
CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA
INDEX NAME)

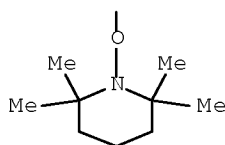


CN Benzoic acid, 4,4',4'',4'''-(21H,23H-porphine-5,10,15,20-tetrayl)tetrakis-, tetrakis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A







CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 14609-54-2, 5,10,15,20-Tetrakis(4-carboxyphenyl)porphyrin 20769-85-1
 81913-53-3 145764-54-1 221208-75-9
 (in preparation of nanosized "Cored" star polymers)
 IT 70449-39-7P 161776-41-6P 668420-46-0P 668420-47-1P
 668420-50-6P
 (in preparation of nanosized "Cored" star polymers)
 IT 668420-45-9P 668420-51-7P
 (polymerization catalyst; in preparation of nanosized "Cored" star
 polymers)
 REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 15 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:33987 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:94467
 TITLE: Azlactone initiators for nitroxide-mediated
 polymerization
 INVENTOR(S): Lewandowski, Kevin M.; Fansler, Duane D.;
 Wendland, Michael S.; Gaddam, Babu N.
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
 SOURCE: U.S., 11 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6677413	B1	20040113	US 2003-358724	20030205
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US 20040152852	A1	20040805	US 2003-726405	20031203
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US 6784264	B2	20040831		
WO 2004072127	A1	20040826	WO 2003-US41366	20031223
			<--	

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 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
 MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
 SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN,
 YU, ZA, ZM, ZW

10/519,030

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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 DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
 SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
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AU 2003297540 A1 20040906 AU 2003-297540 20031223

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EP 1590374 A1 20051102 EP 2003-815923 20031223

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EP 1590374 B1 20060614

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JP 2006514133 T 20060427 JP 2004-568343 20031223

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AT 329933 T 20060715 AT 2003-815923 20031223

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PRIORITY APPLN. INFO.: US 2003-358724 A3 20030205

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WO 2003-US41366 W 20031223

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OTHER SOURCE(S): MARPAT 140:94467

ED Entered STN: 15 Jan 2004

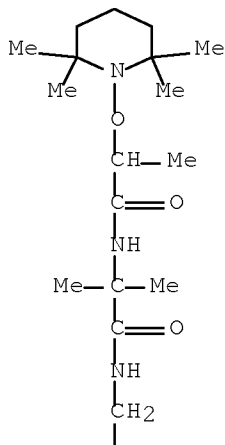
AB The initiators have an azlactone or ring-opened azlactone moiety to provide telechelic (co)polymers. AzTEMPO (0.00066 mol) and styrene (0.132 mol) were mixed in toluene, the solution was deoxygenated by bubbling N (g) through it for 30 min and heated to 130°, after 16 h the product had Mn 20,611 g/mol, then a 1% solution of tris(2-aminoethyl)amine (0.000226 mol) in toluene was added in two portions to give a three-arm polystyrene of Mn 50,061 g/mol.

IT 642479-67-2P
 (azlactone initiators for nitroxide-mediated polymerization of styrene)

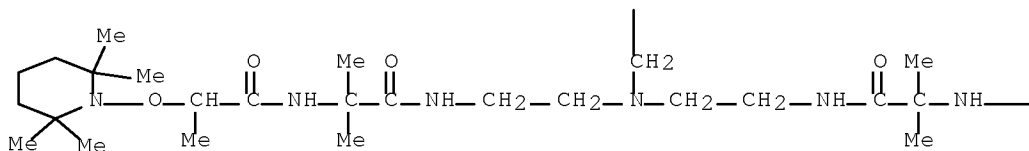
RN 642479-67-2 HCAPLUS

CN Propanamide, N,N',N''-(nitrilotri-2,1-ethanediyl)tris[2-methyl-2-[[1-oxo-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]propyl]amino]- (9CI)
 (CA INDEX NAME)

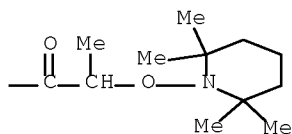
PAGE 1-A



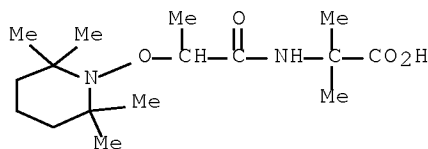
PAGE 2-A



PAGE 2-B



IT 642479-63-8P
 (ring closure reaction; azlactone initiators for nitroxide-mediated polymerization of styrene)
 RN 642479-63-8 HCAPLUS
 CN Alanine, 2-methyl-N-[1-oxo-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]propyl]- (CA INDEX NAME)



IC ICM C08F002-00
 INCL 526204000; 526217000; 526222000; 526224000; 526265000; 526271000;
 526287000; 526291000; 526303100; 526304000
 CC 35-3 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 67
 IT 642479-67-2P
 (azlactone initiators for nitroxide-mediated polymerization of styrene)
 IT 642479-63-8P
 (ring closure reaction; azlactone initiators for nitroxide-mediated polymerization of styrene)
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 16 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:2855 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:77932
 TITLE: Cationic alkoxyamines and their use in producing

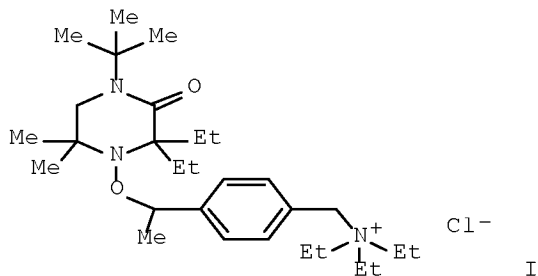
10/519,030

nanoparticles from natural or synthetic
clays

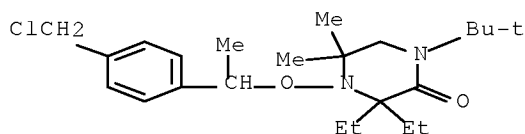
INVENTOR(S): Muehlebach, Andreas; Nesvadba, Peter; Kramer,
Andreas
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000809	A1	20031231	WO 2003-EP6370	20030617
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CA 2486958	A1	20031231	CA 2003-2486958	20030617
AU 2003279373	A1	20040106	AU 2003-279373	20030617
EP 1515950	A1	20050323	EP 2003-740262	20030617
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1662499	A	20050831	CN 2003-814665	20030617
JP 2005538964	T	20051222	JP 2004-514745	20030617
MX 2004PA12885	A	20050331	MX 2004-PA12885	20041217
US 20050215691	A1	20050929	US 2004-519030	20041222
PRIORITY APPLN. INFO.:			EP 2002-405520	A 20020624
			WO 2003-EP6370	W 20030617

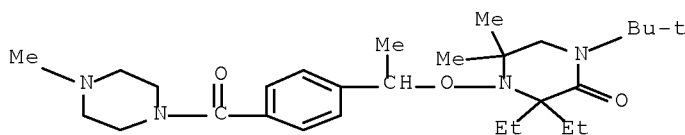
OTHER SOURCE(S): MARPAT 140:77932
ED Entered STN: 02 Jan 2004
GI



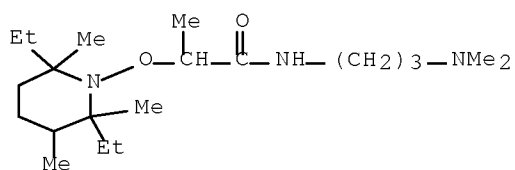
- AB The instant invention relates to cationic alkoxyamines such as I, which are useful as polymerization initiators/regulators in a controlled stable free radical polymerization of unsatd. compds. in the presence of nanoparticles of natural or synthetic clays to produce intercalated and/or exfoliated nanoparticles. The invention also relates to improved nanocomposites produced by this process and to the use of these nanocomposite compns. as, for example, coatings, sealants, caulks, adhesives and as plastic additives.
- IT 639809-49-7P, 1-tert-Butyl-4-[1-[4-(chloromethyl)phenyl]ethoxy]-3,3-diethyl-5,5-dimethylpiperazin-2-one
 639809-51-1P, 1-tert-Butyl-3,3-diethyl-5,5-dimethyl-4-[1-[4-(4-methylpiperazin-1-ylcarbonyl)phenyl]ethoxy]piperazin-2-one
 639809-54-4P, 2-(2,6-Diethyl-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)propionamide 639809-56-6P,
 2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)propionamide 639809-60-2P,
 2,6-Diethyl-1-(1-phenylethoxy)-2,3,6-trimethylpiperidin-4-one
 O-(3-dimethylaminopropyl) oxime 639809-63-5P,
 Bis[2,6-diethyl-1-[1-(3-dimethylaminopropylcarbonyl)ethoxy]-2,3,6-trimethylpiperidin-4-yl] terephthalate 639809-65-7P,
 N-(3-Dimethylaminopropyl)-2-(4-hydroxy-2,2,6,6-tetramethylpiperidin-1-yloxy)propionamide 639809-67-9P, 2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)-2-methylpropionamide 639809-73-7P
 (catalyst precursor; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)
- RN 639809-49-7 HCAPLUS
- CN 2-Piperazinone, 4-[1-[4-(chloromethyl)phenyl]ethoxy]-1-(1,1-dimethylethyl)-3,3-diethyl-5,5-dimethyl- (CA INDEX NAME)



- RN 639809-51-1 HCAPLUS
- CN 2-Piperazinone, 1-(1,1-dimethylethyl)-3,3-diethyl-5,5-dimethyl-4-[1-[4-[(4-methyl-1-piperazinyl)carbonyl]phenyl]ethoxy]- (CA INDEX NAME)

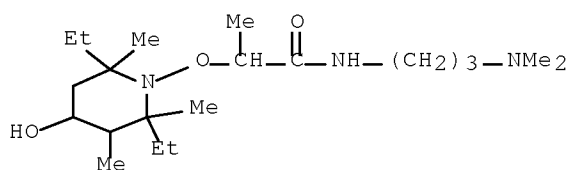


- RN 639809-54-4 HCAPLUS
- CN Propanamide, 2-[(2,6-diethyl-2,3,6-trimethyl-1-piperidinyloxy)-N-[3-(dimethylamino)propyl]- (CA INDEX NAME)



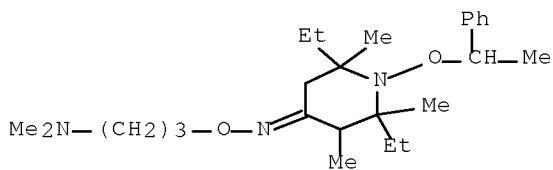
RN 639809-56-6 HCAPLUS

CN Propanamide, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-N-[3-(dimethylamino)propyl]- (CA INDEX NAME)



RN 639809-60-2 HCAPLUS

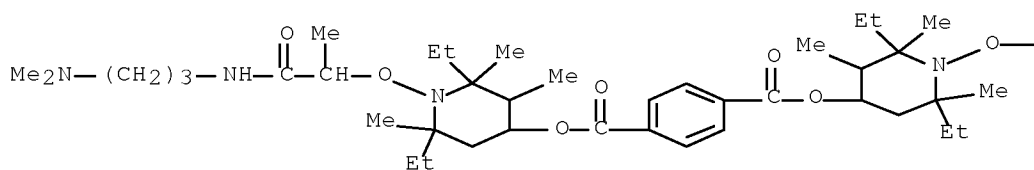
CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, O-[3-(dimethylamino)propyl]oxime (CA INDEX NAME)

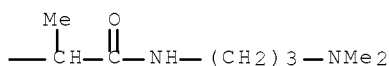


RN 639809-63-5 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, 1,4-bis[1-[2-[[3-(dimethylamino)propyl]amino]-1-methyl-2-oxoethoxy]-2,6-diethyl-2,3,6-trimethyl-4-piperidinyl] ester (CA INDEX NAME)

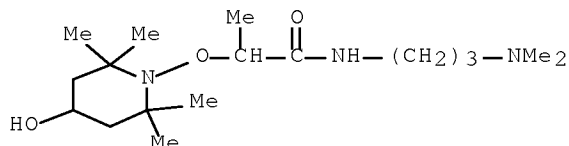
PAGE 1-A





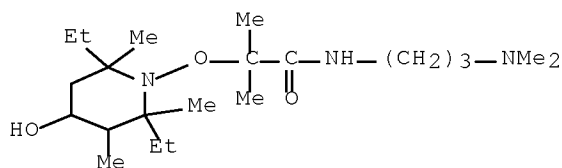
RN 639809-65-7 HCAPLUS

CN Propanamide, N-[3-(dimethylamino)propyl]-2-[(4-hydroxy-2,2,6,6-tetramethyl-1-piperidinyloxy)]- (CA INDEX NAME)



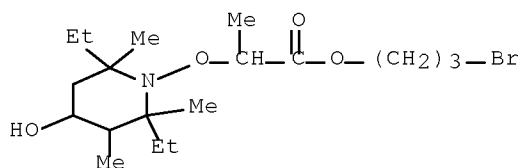
RN 639809-67-9 HCAPLUS

CN Propanamide, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyloxy)]-N-[3-(dimethylamino)propyl]-2-methyl- (CA INDEX NAME)



RN 639809-73-7 HCAPLUS

CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyloxy)]-, 3-bromopropyl ester (CA INDEX NAME)

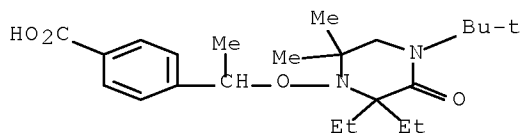


IT 319458-08-7, 4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzoic acid 478697-26-6

(catalyst precursor; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

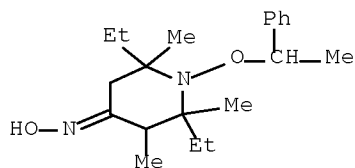
RN 319458-08-7 HCAPLUS

CN Benzoic acid, 4-[1-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]ethyl]- (CA INDEX NAME)



RN 478697-26-6 HCAPLUS

CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime (CA INDEX NAME)



IT 639809-48-6P, [4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzyl]triethylammonium chloride
 639809-50-0P, 4-[4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzoyl]-1,1-dimethylpiperazin-1-ium iodide
 639809-52-2P, [3-[2-(2,6-Diethyl-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide
 639809-55-5P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide
 639809-59-9P, [3-[2,6-Diethyl-1-(1-phenylethoxy)-2,3,6-trimethylpiperidin-4-ylideneamino]propyl]dimethylethylammonium bromide
 639809-61-3P, Bis[[3-[2-(2,6-diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide] terephthalate
 639809-64-6P, Ethyl[3-[2-(4-hydroxy-2,2,6,6-tetramethylpiperidin-1-yloxy)propionylamino]propyl]dimethylammonium bromide
 639809-66-8P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-2-methylpropionylamino]propyl]dimethylethylammonium bromide
 639809-69-1P, Benzyl[3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-2-methylpropionylamino]propyl]dimethylammonium chloride
 639809-70-4P, Benzyl[3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylammonium chloride
 639809-71-5P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]tributylphosphonium bromide

(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

RN 639809-48-6 HCAPLUS

CN Benzenemethanaminium, 4-[1-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]ethyl]-N,N,N-triethyl-, chloride

(1:1) (CA INDEX NAME)



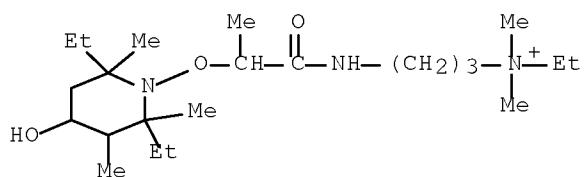
CN Piperazinium, 4-[4-[1-[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]ethyl]benzoyl]-1,1-dimethyl-, iodide (1:1)
(CA INDEX NAME)



CN 1-Propanaminium, 3-[[2-[(2,6-diethyl-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropyl]amino]-N-ethyl-N,N-dimethyl-, bromide (1:1) (CA INDEX NAME)



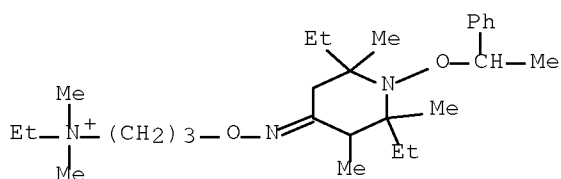
CN 1-Propanaminium, 3-[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropyl]amino]-N-ethyl-N,N-dimethyl-, bromide (1:1) (CA INDEX NAME)



● Br⁻

RN 639809-59-9 HCAPLUS

CN 1-Propanaminium, 3-[[[2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-4-piperidinyldene]amino]oxy]-N-ethyl-N,N-dimethyl-, bromide (1:1) (CA INDEX NAME)

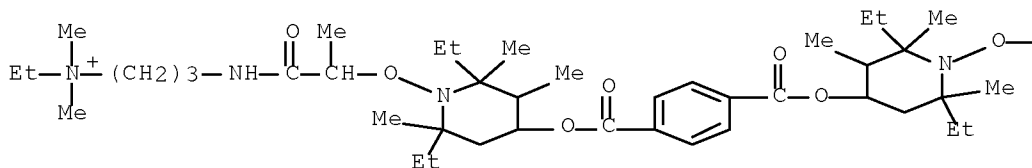


● Br⁻

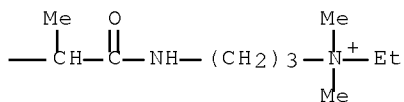
RN 639809-61-3 HCAPLUS

CN 1-Propanaminium, 3,3'-[1,4-phenylenebis[carbonyloxy(2,6-diethyl-2,3,6-trimethyl-4,1-piperidinediyl)oxy(2-methyl-1-oxo-2,1-ethanediy)imino]]bis[N-ethyl-N,N-dimethyl-, dibromide (9CI) (CA INDEX NAME)

PAGE 1-A

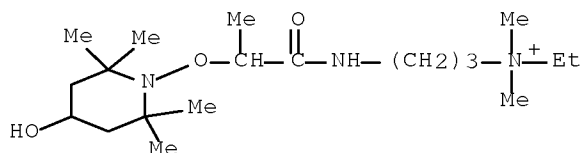


●2 Br⁻



RN 639809-64-6 HCAPLUS

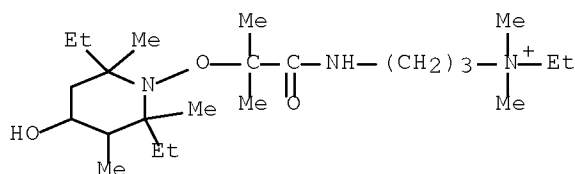
CN 1-Propanaminium, N-ethyl-3-[[2-[(4-hydroxy-2,2,6,6-tetramethyl-1-piperidinyl)oxy]-1-oxopropyl]amino]-N,N-dimethyl-, bromide (1:1) (CA INDEX NAME)



● Br⁻

RN 639809-66-8 HCAPLUS

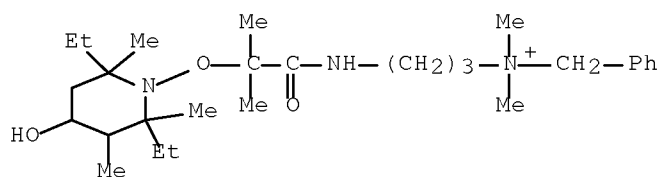
CN 1-Propanaminium, 3-[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-2-methyl-1-oxopropyl]amino]-N-ethyl-N,N-dimethyl-, bromide (1:1) (CA INDEX NAME)



● Br⁻

RN 639809-69-1 HCAPLUS

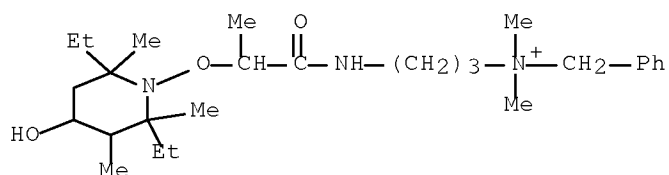
CN Benzenemethanaminium, N-[3-[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-2-methyl-1-oxopropyl]amino]propyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RN 639809-70-4 HCAPLUS

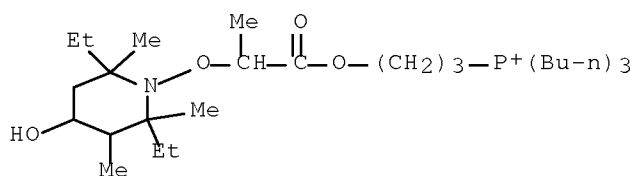
CN Benzenemethanaminium, N-[3-[2-[2-(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropyl]amino]propyl]-N,N-dimethyl-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RN 639809-71-5 HCAPLUS

CN Phosphonium, tributyl[3-[2-[2-(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropoxy]propyl]-, bromide (1:1) (CA INDEX NAME)



● Br⁻

IC ICM C07D211-94

ICS C07D241-08; C07F009-38; C08F002-00

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 23, 27, 28, 38, 42

IT Phosphonium compounds

Quaternary ammonium compounds, preparation

(alkoxyamino; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from

- natural or synthetic clays for manufacture of nanocomposites)
- IT Disperse systems
 - (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposite dispersions)
- IT Nanocomposites
 - Polymerization catalysts
 - (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)
- IT Phyllosilicate minerals
 - Smectite-group minerals
 - (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)
- IT Adhesives
 - (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for adhesive additives)
- IT Coating materials
 - (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for coating additives)
- IT Inks
 - (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for ink additives)
- IT Paints
 - (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for paint additives)
- IT Clay minerals
 - (intercalated, cationic alkoxyamine-; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)
- IT Plastics, miscellaneous
 - (thermoplastics; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites for thermoplastics)
- IT 188526-94-5P 639809-49-7P, 1-tert-Butyl-4-[1-[4-(chloromethyl)phenyl]ethoxy]-3,3-diethyl-5,5-dimethylpiperazin-2-one 639809-51-1P, 1-tert-Butyl-3,3-diethyl-5,5-dimethyl-4-[1-[4-(4-methylpiperazin-1-ylcarbonyl)phenyl]ethoxy]piperazin-2-one 639809-53-3P, 2-Chloro-N-(3-dimethylaminopropyl)propionamide 639809-54-4P, 2-(2,6-Diethyl-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)propionamide 639809-56-6P, 2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)propionamide 639809-58-8P, Diethyl [1-[tert-butyl-1-(3-dimethylaminopropylcarbonyl)ethoxy]amino]-2,2-dimethylpropylphosphonate 639809-60-2P, 2,6-Diethyl-1-(1-phenylethoxy)-2,3,6-trimethylpiperidin-4-one O-(3-dimethylaminopropyl) oxime 639809-63-5P, Bis[2,6-diethyl-1-[1-(3-dimethylaminopropylcarbonyl)ethoxy]-2,3,6-trimethylpiperidin-4-yl] terephthalate 639809-65-7P,

N-(3-Dimethylaminopropyl)-2-(4-hydroxy-2,2,6,6-tetramethylpiperidin-1-yloxy)propionamide 639809-67-9P, 2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-N-(3-dimethylaminopropyl)-2-methylpropionamide 639809-68-0P, 2-Bromo-N-(3-dimethylaminopropyl)-2-methylpropionamide 639809-72-6P, 3-Bromopropyl 2-bromopropionate 639809-73-7P

(catalyst precursor; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT 74-88-4, Methyl iodide, reactions 74-96-4, Ethyl bromide 100-44-7, Benzyl chloride, reactions 109-01-3, N-Methylpiperazine 109-54-6, 3-Dimethylaminopropyl chloride 109-55-7, 3-Dimethylamino-1-propylamine 121-44-8, Triethylamine, reactions 627-18-9 998-40-3, Tributylphosphine 1592-20-7, 4-Chloromethylstyrene 2226-96-2, 4-Hydroxy-TEMPO 17639-93-9, Methyl 2-chloropropionate 20769-85-1, 2-Bromo-2-methylpropionyl bromide 61745-37-7, 2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidine 1-N-oxyl 61746-17-6, 2,6-Diethyl-2,3,6-trimethylpiperidine 1-N-oxyl 264279-93-8, 1-tert-Butyl-3,3-diethyl-5,5-dimethylpiperazin-2-one 4-N-oxyl 319458-08-7, 4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzoic acid 478697-26-6 639809-62-4

(catalyst precursor; cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT 639809-48-6P, [4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzyl]triethylammonium chloride 639809-50-0P, 4-[4-[1-(4-tert-Butyl-2,2-diethyl-6,6-dimethyl-3-oxopiperazin-1-yloxy)ethyl]benzoyl]-1,1-dimethylpiperazin-1-ium iodide 639809-52-2P, [3-[2-(2,6-Diethyl-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide 639809-55-5P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide 639809-57-7P 639809-59-9P, [3-[2,6-Diethyl-1-(1-phenylethoxy)-2,3,6-trimethylpiperidin-4-ylideneaminoxy]propyl]dimethylethylammonium bromide 639809-61-3P, Bis[[3-[2-(2,6-diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylethylammonium bromide] terephthalate 639809-64-6P, Ethyl[3-[2-(4-hydroxy-2,2,6,6-tetramethylpiperidin-1-yloxy)propionylamino]propyl]dimethylammonium bromide 639809-66-8P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-2-methylpropionylamino]propyl]dimethylethylammonium bromide 639809-69-1P, Benzyl[3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)-2-methylpropionylamino]propyl]dimethylammonium chloride 639809-70-4P, Benzyl[3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]dimethylammonium chloride 639809-71-5P, [3-[2-(2,6-Diethyl-4-hydroxy-2,3,6-trimethylpiperidin-1-yloxy)propionylamino]propyl]tributylphosphonium bromide

(cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT 9003-49-0P, Poly(butyl acrylate) 9003-53-6P, Polystyrene (cationic alkoxyamines for catalysts/regulators for polymerization of unsatd. compds. in presence of nanoparticles from natural or synthetic clays for manufacture of nanocomposites)

IT 1318-00-9, Vermiculite 1318-74-7, Kaolinite, uses 1318-93-0D, Montmorillonite, derivs. 1319-41-1, Saponite 12172-85-9, Beidellite 12173-47-6, Optigel SH 12174-06-0,

10/519,030

Nontronite (Fe₂(Si_{3.67}Al_{0.33})Na_{0.33}(OH)₂₀10.xH₂O) 12244-16-5,
Endellite 12417-86-6, Stevensite 565450-32-0, Nanofil EXM588
(cationic alkoxyamines for catalysts/regulators for polymerization of
unsatd. compds. in presence of nanoparticles from natural or
synthetic clays for manufacture of nanocomposites)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 17 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:583946 HCAPLUS Full-text

DOCUMENT NUMBER: 139:246241

TITLE: An improved catalytic method for alkoxyamine
synthesis - functionalized and biradical
initiators for nitroxide-mediated radical
polymerization

AUTHOR(S): Bothe, Marc; Schmidt-Naake, Gudrun

CORPORATE SOURCE: Institut fuer Technische Chemie, Technische
Universitaet Clausthal, Clausthal-Zellerfeld,
38678, Germany

SOURCE: Macromolecular Rapid Communications (2003
, 24(10), 609-613

CODEN: MRCOE3; ISSN: 1022-1336

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 30 Jul 2003

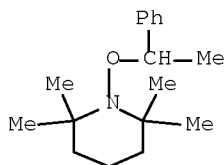
AB Mn(salen)Cl [(N,N'-disalicylidene-1,2-ethanediamino)manganese chloride] was
applied as a low-cost catalyst for the formation of alkoxyamines from
nitroxides and substituted styrenes. These "unimol. initiators" for
nitroxide-mediated radical polymerization (NMRP) were synthesized using
2,2,6,6-tetramethyl-1-piperidine-1-oxyl and 2,2,5-trimethyl-4-phenyl-3-
azahexane-3-oxyl. Functionalized alkoxyamines were obtained from 4-
vinylbenzyl chloride and 4-vinylbenzyl alc. The divinyl compound 1,2-bis(4-
vinylphenyl)ethane was converted to an alkoxyamine monomer and to bisaminooxy
compds., which can be used as "biradical initiators" for NMRP.

IT 154554-67-3P 212132-38-2P 596135-22-7P

(improved catalytic method for synthesis of alkoxyamine
functionalized and biradical initiators for nitroxide-mediated
radical polymerization)

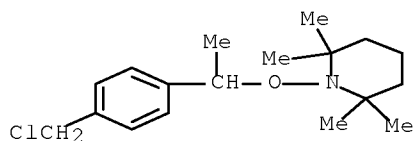
RN 154554-67-3 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



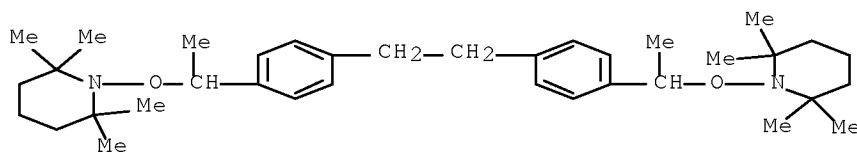
RN 212132-38-2 HCAPLUS

CN Piperidine, 1-[1-[4-(chloromethyl)phenyl]ethoxy]-2,2,6,6-tetramethyl-
(CA INDEX NAME)



RN 596135-22-7 HCAPLUS

CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenyleneethoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

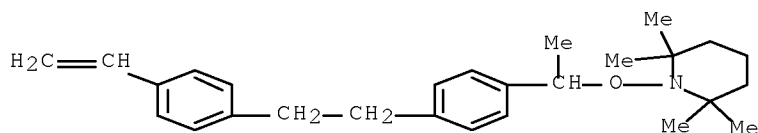


IT 596135-23-8P

(monomer; improved catalytic method for synthesis of alkoxyamine functionalized and biradical initiators for nitroxide-mediated radical polymerization)

RN 596135-23-8 HCAPLUS

CN Piperidine, 1-[1-[4-[2-(4-ethenylphenyl)ethyl]phenyl]ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 154554-67-3P 212132-38-2P 227000-59-1P

227000-85-3P 433266-98-9P 596135-22-7P 596135-24-9P

(improved catalytic method for synthesis of alkoxyamine functionalized and biradical initiators for nitroxide-mediated radical polymerization)

IT 596135-23-8P

(monomer; improved catalytic method for synthesis of alkoxyamine functionalized and biradical initiators for nitroxide-mediated radical polymerization)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 18 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:383971 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 139:117728

TITLE: Synthesis and reactivity of functionalized

alkoxyamine initiators for nitroxide-mediated radical polymerization of styrene

AUTHOR(S): Li, Irene Q.; Knauss, Daniel M.; Priddy, Duane B.; Howell, Bob A.

CORPORATE SOURCE: Department of Chemistry and Geochemistry, Colorado School of Mines, Golden, CO, 80401, USA

SOURCE: Polymer International (2003), 52(5), 805-812
CODEN: PLYIEI; ISSN: 0959-8103

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 May 2003

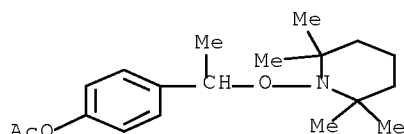
AB The synthesis and examination of different functionalized (2,2,6,6-tetramethyl-1-piperidinyloxy free radical) TEMPO-containing alkoxyamine initiators for nitroxide-mediated radical polymerization of styrene are reported. Initiators with ester and carbonate functional groups were synthesized by a low-temperature radical-abstraction reaction of the functionalized ethylbenzene in the presence of TEMPO to introduce the functional groups onto the initiating chain-end of polystyrene. An initiator with two alkoxyamine groups sym. located at each end of a carbonate bond was also synthesized and used for nitroxide-mediated styrene polymerization. Styrene polymerization using these initiators followed first-order kinetics up to approx. 60 min at 140° or 30% monomer conversion. Alkoxyamines bearing an acetoxy or tert-butylcarbonate group at the p-position of 1-(2,2,6,6-tetramethyl-1-piperidinyloxy)ethylbenzene behave in a similar way to the unfunctionalized initiator. With an initiator containing two alkoxyamine groups, the resulting polymer mol. weight was twice that of the polymer obtained from initiators with only one alkoxyamine group, as expected from propagation from both chain-ends. Upon hydrolysis of the carbonate bond, equivalent polymer chain growth occurred from each alkoxyamine site in the difunctional initiator.

IT 213699-59-3P 224824-56-0P 562102-19-6P
562102-23-2P

(synthesis of TEMPO-containing alkoxyamine initiators for radical polymerization of styrene)

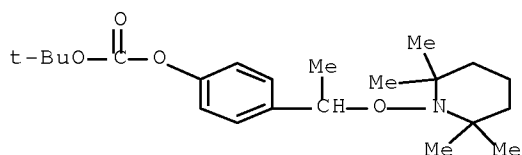
RN 213699-59-3 HCAPLUS

CN Phenol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-, acetate (ester) (9CI) (CA INDEX NAME)



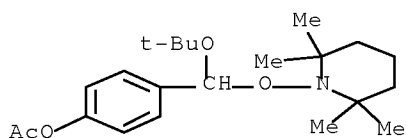
RN 224824-56-0 HCAPLUS

CN Carbonic acid, 1,1-dimethylethyl 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl ester (9CI) (CA INDEX NAME)



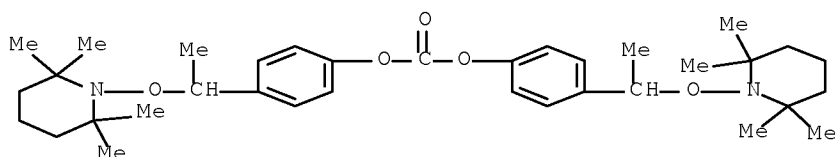
RN 562102-19-6 HCAPLUS

CN Phenol, 4-[(1,1-dimethylethoxy)(2,2,6,6-tetramethyl-1-piperidinyl)oxy]methyl]-, acetate (ester) (9CI) (CA INDEX NAME)



RN 562102-23-2 HCAPLUS

CN Phenol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-, carbonate (2:1) (ester) (9CI) (CA INDEX NAME)

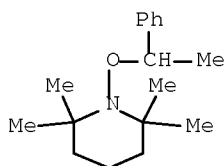


IT 154554-67-3P 562102-22-1P

(synthesis of TEMPO-containing alkoxyamine initiators for radical polymerization of styrene)

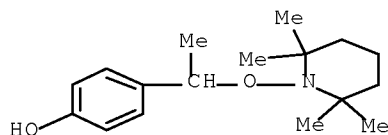
RN 154554-67-3 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



RN 562102-22-1 HCAPLUS

CN Phenol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 213699-59-3P 224824-56-0P 562102-19-6P
 562102-23-2P
 (synthesis of TEMPO-containing alkoxyamine initiators for radical
 polymerization of styrene)
 IT 3245-23-6P, 4-(Acetoxy)ethylbenzene 154554-67-3P
 562102-22-1P
 (synthesis of TEMPO-containing alkoxyamine initiators for radical
 polymerization of styrene)
 REFERENCE COUNT: 74 THERE ARE 74 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 19 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:221728 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:238564
 TITLE: Preparation of hydroxy-vinyl-aromatic polymers or
 copolymers by anionic or controlled radical
 polymerization
 INVENTOR(S): Nesvadba, Peter; Kunimoto, Kazuhiko
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022895	A1	20030320	WO 2002-EP9782	20020902
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	
RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
CA 2457946	A1	20030320	CA 2002-2457946	20020902
AU 2002342631	A1	20030324	AU 2002-342631	20020902
EP 1436337	A1	20040714	EP 2002-779289	20020902
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK	
BR 2002012335	A	20040921	BR 2002-12335	20020902
CN 1553922	A	20041208	CN 2002-817640	20020902
JP 2005502744	T	20050127	JP 2003-526966	20020902
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10/519,030

US 20040242813	A1	20041202	US 2004-489045	20040306
MX 2004PA02287	A	20040629	MX 2004-PA2287	20040310
IN 2004CN00715	A	20060113	IN 2004-CN715	20040405
PRIORITY APPLN. INFO.:			EP 2001-810868	A 20010910
			WO 2002-EP9782	W 20020902

OTHER SOURCE(S): MARPAT 138:238564

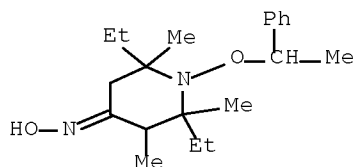
ED Entered STN: 21 Mar 2003

AB The hydroxy-vinyl-aromatic polymers in particular 4-hydroxystyrene polymers or copolymers are made by anionic or controlled radical polymerization of the resp. monomer, where the hydroxy functionality is blocked with a protective group which is subsequently removed in a hydrogenation process. The resulting (co)polymers have a narrow polydispersity and are useful for manufacturing photoresists. Thus, 4-benzyloxystyrene (450 mmol) and 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)piperidin-4-one oxime (4.50 mmol) are heated to 130° and stirred for 6 h under Ar, cooled down to room temperature, dissolved in CH₂Cl₂ (120 mL), and precipitated in MeOH, giving polymer with Mn 9787, Mw/Mn 1.17, which was hydrogenated.

IT 478697-26-6P
(hydroxyvinyl aromatic polymers or copolymers by anionic or controlled radical polymerization in the presence of stable free N radical and/or free radical initiator, transition metal)

RN 478697-26-6 HCAPLUS

CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime
(CA INDEX NAME)



IC ICM C08F012-24

ICS C08F004-04; C08F004-28

CC 35-4 (Chemistry of Synthetic High Polymers)

IT 478697-26-6P

(hydroxyvinyl aromatic polymers or copolymers by anionic or controlled radical polymerization in the presence of stable free N radical and/or free radical initiator, transition metal)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 20 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:42249 HCAPLUS Full-text

DOCUMENT NUMBER: 138:107153

TITLE: Multifunctional alkoxyamines based on polyalkylpiperidines, polyalkylpiperazinones and polyalkylmorpholinones and their use as polymerization regulators/initiators

INVENTOR(S): Kramer, Andreas; Muehlebach, Andreas; Nesvadba, Peter; Zink, Marie-Odile; Hintermann, Tobias

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

10/519,030

SOURCE: PCT Int. Appl., 48 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004471	A1	20030116	WO 2002-EP7131	20020627
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2450232	A1	20030116	CA 2002-2450232	20020627
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AU 2002325279	A1	20030121	AU 2002-325279	20020627
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EP 1417171	A1	20040512	EP 2002-758282	20020627
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CN 1522247	A	20040818	CN 2002-813456	20020627
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JP 2005502622	T	20050127	JP 2003-510639	20020627
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MX 2003PA11833	A	20040326	MX 2003-PA11833	20031218
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US 20040167303	A1	20040826	US 2003-482546	20031230
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US 6936670	B2	20050830		
PRIORITY APPLN. INFO.:			EP 2001-810664	A 20010705
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			WO 2002-EP7131	W 20020627
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OTHER SOURCE(S): MARPAT 138:107153

ED Entered STN: 17 Jan 2003

AB The instant invention relates to multifunctional alkoxyamines based on polyalkylpiperidines, polyalkylpiperazinones and polyalkylmorpholinones and their use as polymerization regulators/initiators. Further subjects of the invention are a polymerizable composition comprising an ethylenically unsatd. monomer (e.g., styrene) or oligomer and the alkoxyamine compound as well as a process for polymerization and a process for preparation of the compds.

IT 485844-67-5P 485844-69-7P 485844-70-0P
 485844-71-1P 485844-72-2P 485844-74-4P
 485844-75-5P 485844-77-7P 485844-78-8P
 485844-79-9P 485844-80-2P 485844-81-3P

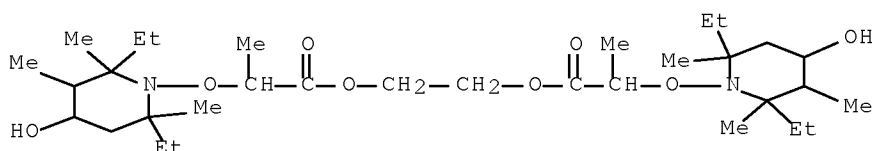
(multifunctional alkoxyamines based on polyalkylpiperidines, polyalkylpiperazinones and polyalkylmorpholinones and their use as polymerization regulators/initiators)

RN 485844-67-5 HCAPLUS

CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-

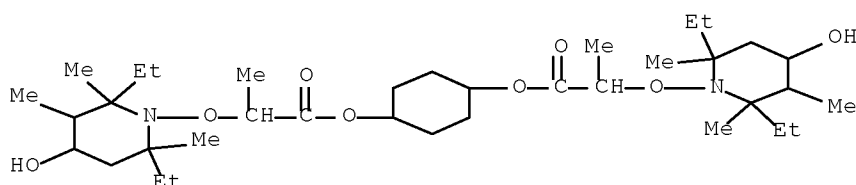
10/519,030

piperidinyl)oxy]-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



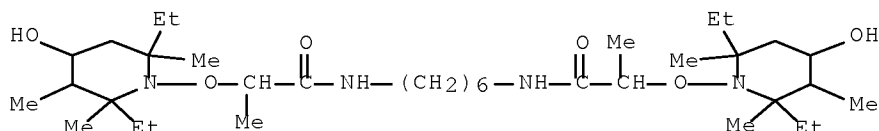
RN 485844-69-7 HCAPLUS

CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-, 1,4-cyclohexanediyl ester (9CI) (CA INDEX NAME)



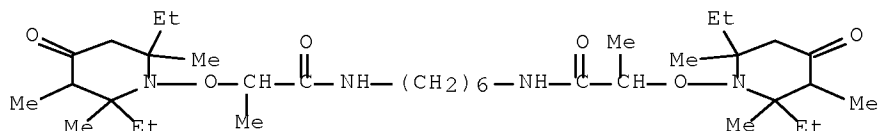
RN 485844-70-0 HCAPLUS

CN Propanamide, N,N'-1,6-hexanediylbis[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



RN 485844-71-1 HCAPLUS

CN Propanamide, N,N'-1,6-hexanediylbis[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]- (CA INDEX NAME)

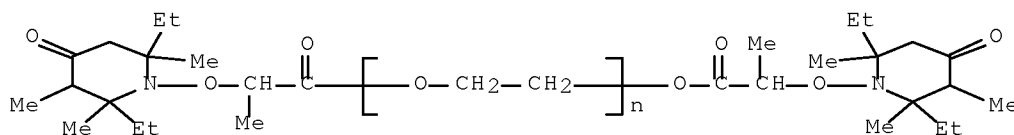


RN 485844-72-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropyl]- ω -[2-[(2,6-diethyl-2,3,6-

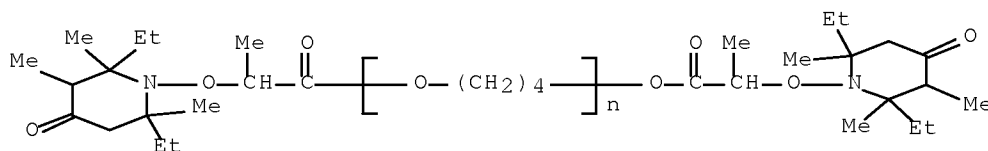
10/519,030

trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropoxy]- (9CI) (CA INDEX NAME)



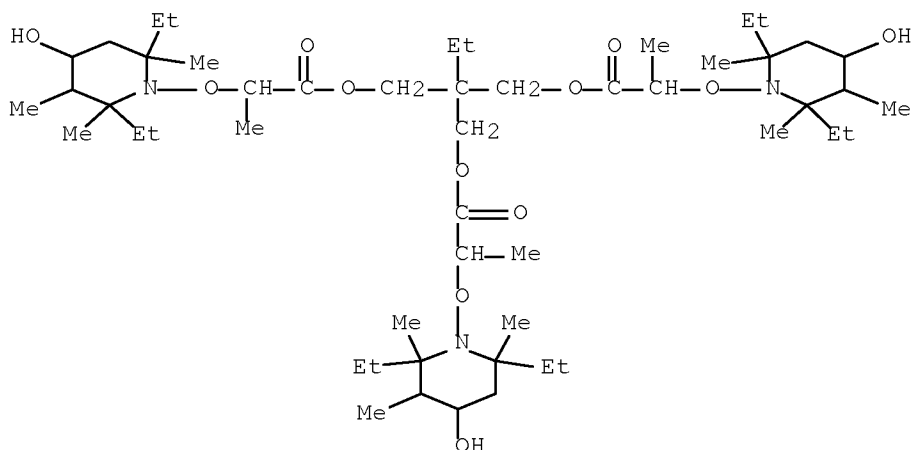
RN 485844-74-4 HCAPLUS

CN Poly(oxy-1,4-butanediyl), α -[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropyl]- ω -[2-[(2,6-diethyl-2,3,6-trimethyl-4-oxo-1-piperidinyl)oxy]-1-oxopropoxy]- (9CI) (CA INDEX NAME)



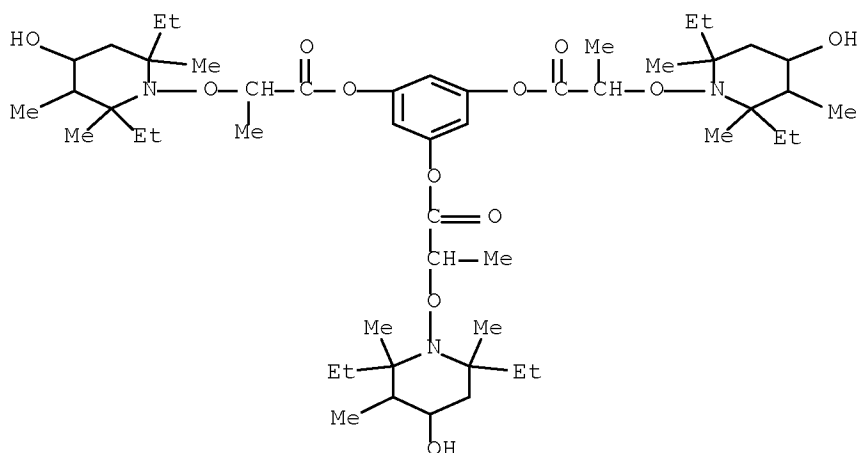
RN 485844-75-5 HCAPLUS

CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-, 2-[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-1-oxopropoxy]methyl]-2-ethyl-1,3-propanediyl ester (9CI) (CA INDEX NAME)



RN 485844-77-7 HCAPLUS

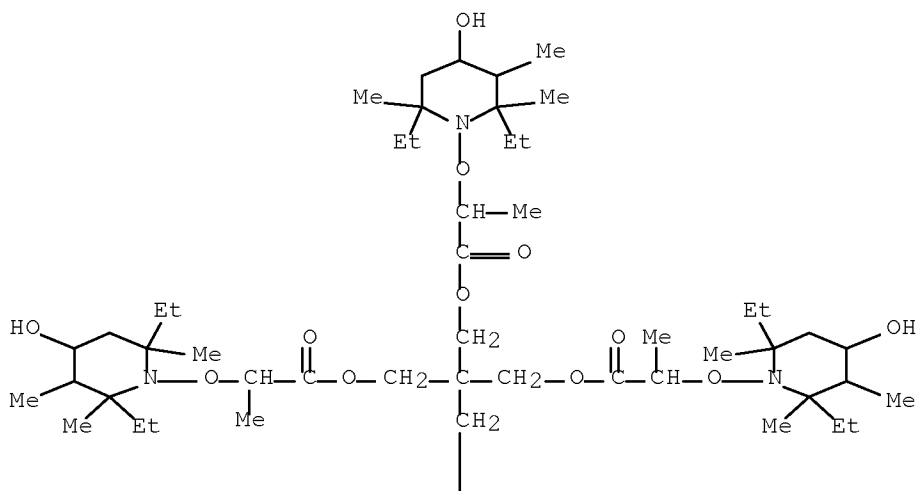
CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]-, 1,3,5-benzenetriyl ester (9CI) (CA INDEX NAME)

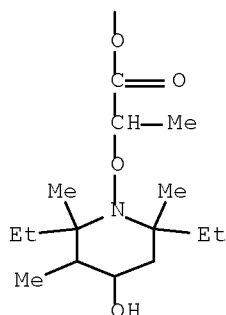


RN 485844-78-8 HCAPLUS

CN Propanoic acid, 2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyloxy)-, 2,2-bis[[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyloxy)]-1-oxopropoxy]methyl]-1,3-propanediyl ester (9CI)
(CA INDEX NAME)

PAGE 1-A

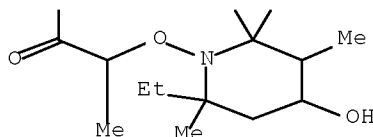
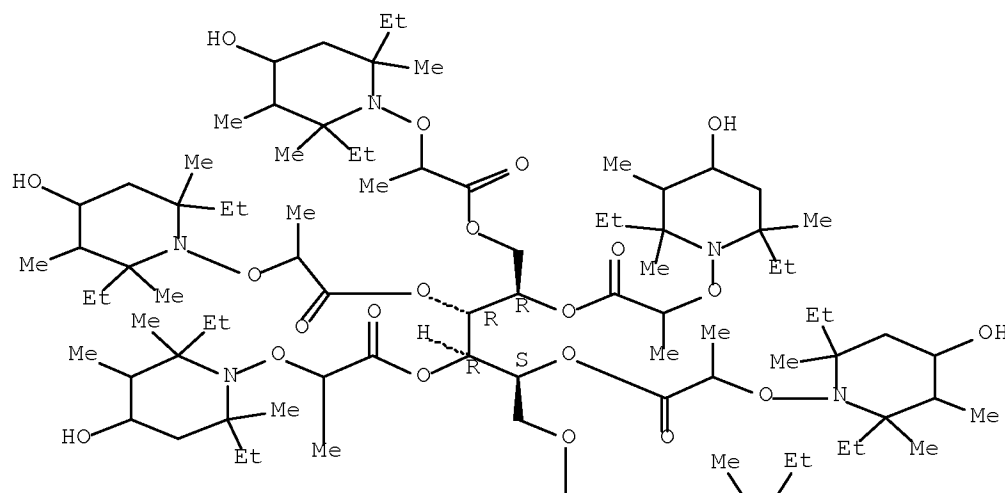




RN 485844-79-9 HCAPLUS

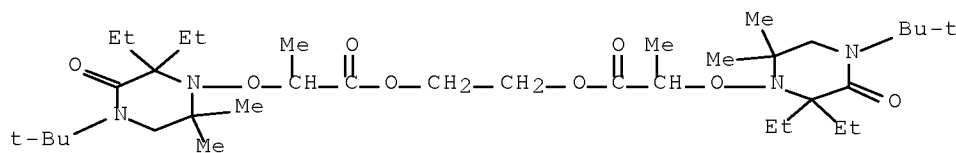
CN D-Glucitol, hexakis[2-[(2,6-diethyl-4-hydroxy-2,3,6-trimethyl-1-piperidinyl)oxy]propanoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



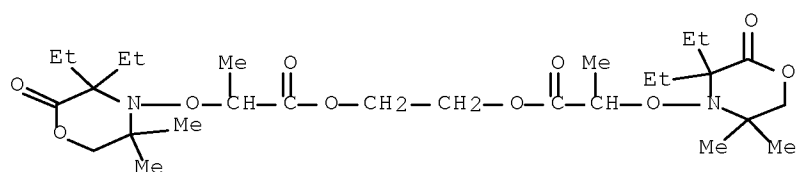
RN 485844-80-2 HCAPLUS

CN Propanoic acid, 2-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



RN 485844-81-3 HCAPLUS

CN Propanoic acid, 2-[(3,3-diethyl-5,5-dimethyl-2-oxo-4-morpholinyl)oxy]-
, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



IC ICM C07D211-94

ICS C08F004-00; C08F002-38; C08F012-08; C08F020-18

CC 35-3 (Chemistry of Synthetic High Polymers)

IT 485844-67-5P 485844-69-7P 485844-70-0P

485844-71-1P 485844-72-2P 485844-74-4P

485844-75-5P 485844-77-7P 485844-78-8P

485844-79-9P 485844-80-2P 485844-81-3P

(multifunctional alkoxyamines based on polyalkylpiperidines,
polyalkylpiperazinones and polyalkylmorpholinones and their use as
polymerization regulators/initiators)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 21 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:964328 HCAPLUS Full-text

DOCUMENT NUMBER: 138:39710

TITLE: N-alkoxy 4-imino piperidine polymerization
regulators and their use in free radical-mediated
polymerization of vinyl monomers to low dispersity
polymers

INVENTOR(S): Nesvadba, Peter; Hintermann, Tobias; Kramer,

Andreas; Zink, Marie-Odile; Bugnon, Lucienne

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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10/519,030

WO 2002100831 A1 20021219 WO 2002-EP6108 20020604
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG
CA 2443718 A1 20021219 CA 2002-2443718 20020604
AU 2002328806 A1 20021223 AU 2002-328806 20020604
EP 1397349 A1 20040317 EP 2002-764577 20020604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
CN 1514827 A 20040721 CN 2002-811633 20020604
JP 2005502601 T 20050127 JP 2003-503600 20020604
MX 2003PA10132 A 20040310 MX 2003-PA10132 20031106
US 20040176553 A1 20040909 US 2003-480188 20031209
US 7199245 B2 20070403
PRIORITY APPLN. INFO.: EP 2001-810567 A 20010613
EP 2001-811154 A 20011128
WO 2002-EP6108 W 20020604

OTHER SOURCE(S): MARPAT 138:39710

ED Entered STN: 20 Dec 2002

AB The present invention relates to selected 4-imino-N-alkoxy-polyalkyl-
piperidine compds. preparation, a polymerizable composition comprising a) at
least one ethylenically unsatd. monomer and b) a 4-imino-N-alkoxy- polyalkyl-
piperidine compound Further aspects of the present invention are a process
for polymerizing ethylenically unsatd. monomers, and the use of 4-imino-N-
alkoxy-polyalkyl-piperidine compds. for controlled polymerization The
intermediate N-oxyl derivs., a composition of the N-oxyl derivs. with
ethylenically unsatd. monomers and a free radical initiator, as well as a
process for polymerization are also subjects of the present invention.

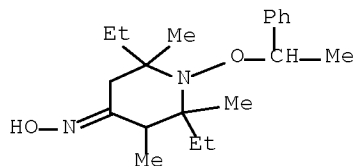
IT 478697-26-6P

(preparation of N-alkoxy 4-imino piperidine polymerization regulators and
their

use in free radical-mediated vinyl monomer polymerization to low
dispersity polymers)

RN 478697-26-6 HCAPLUS

CN 4-Piperidinone, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-, oxime
(CA INDEX NAME)



IC ICM C07D211-94

ICS C08F004-00

CC 35-3 (Chemistry of Synthetic High Polymers)

IT 478697-26-6P 478697-51-7P

(preparation of N-alkoxy 4-imino piperidine polymerization regulators and their

use in free radical-mediated vinyl monomer polymerization to low dispersity polymers)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 22 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:868581 HCAPLUS Full-text

DOCUMENT NUMBER: 138:137635

TITLE: Synthesis of six-arm star polymer by nitroxide-mediated "living" radical polymerization

AUTHOR(S): Miura, Yozo; Yoshida, Yuji

CORPORATE SOURCE: Department of Applied Chemistry, Graduate School of Engineering, Osaka City University, Osaka, 558-8585, Japan

SOURCE: Polymer Journal (Tokyo, Japan) (2002), 34(10), 748-754

CODEN: POLJB8; ISSN: 0032-3896

PUBLISHER: Society of Polymer Science, Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 15 Nov 2002

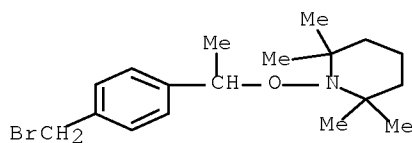
AB A dendritic multifunctional initiator with six TEMPO-based alkoxyamine moieties was prepared from 4-bromoethylbenzene in seven steps. Six-arm star polymers were synthesized by the radical bulk polymerization of styrene using the dendritic alkoxyamine as an initiator. The styrene polymers were carried out at 120° using the dendritic alkoxyamine concns. of 5.0, 12.8 and 18.8 mmol/L. When the alkoxyamine concentration was 5.0 mmol/L, the polydispersity of the resulting star polymers increased with conversion, and the polydispersity of the star polymer at 72% conversion was 1.59. When the alkoxyamine concns. were 12.8 and 18.8 mmol/L, the polymerization was well controlled to give star polymers with low polydispersity even at high conversions. Mol. weight of the star polymers determined by NMR significantly differed from GPC and light scattering detns. and was attributed to the unique structure of the polymers. The six-arm polystyrene synthesis showed features of the living polymerization with some side reactions at high monomer conversion. The deviations from the living polymerization character were discussed on the basis of GPC elution curves of the star polymers.

IT 492446-76-1P 492446-77-2P 492446-78-3P

(in synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)

RN 492446-76-1 HCAPLUS

CN Piperidine, 1-[1-[4-(bromomethyl)phenyl]ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)

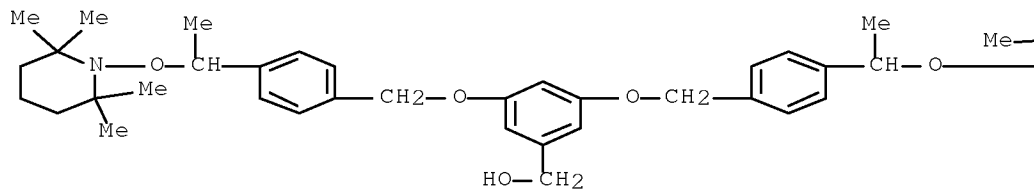


10/519,030

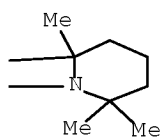
RN 492446-77-2 HCAPLUS

CN Benzenemethanol, 3,5-bis[[4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl]methoxy]- (CA INDEX NAME)

PAGE 1-A



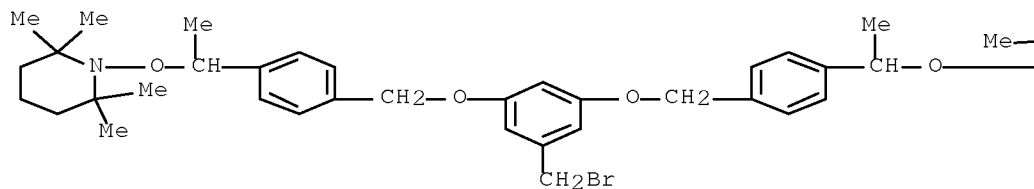
PAGE 1-B



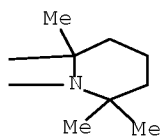
RN 492446-78-3 HCAPLUS

CN Piperidine, 1,1'-[[5-(bromomethyl)-1,3-phenylene]bis(oxymethylene-4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



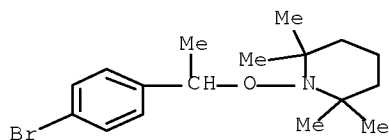
IT 178625-97-3P 209550-23-2P 209550-24-3P

10/519,030

(in synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)

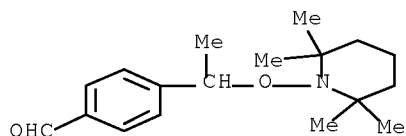
RN 178625-97-3 HCAPLUS

CN Piperidine, 1-[1-(4-bromophenyl)ethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



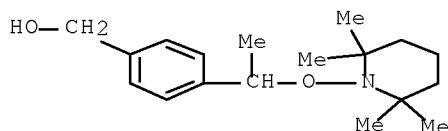
RN 209550-23-2 HCAPLUS

CN Benzaldehyde, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)



RN 209550-24-3 HCAPLUS

CN Benzenemethanol, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]- (CA INDEX NAME)

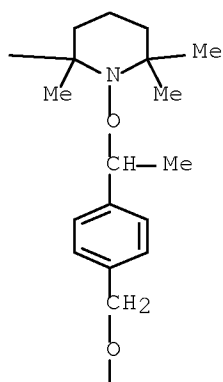
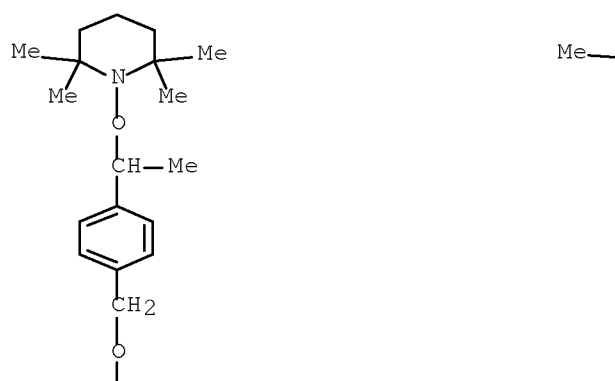


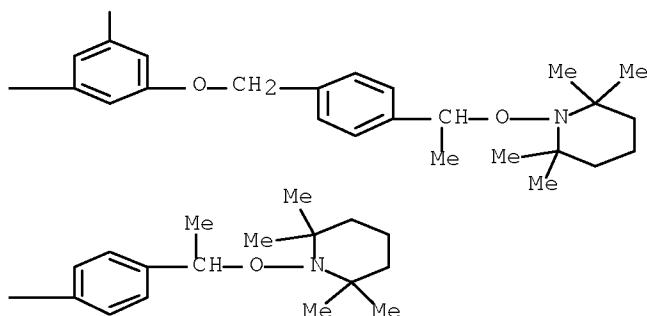
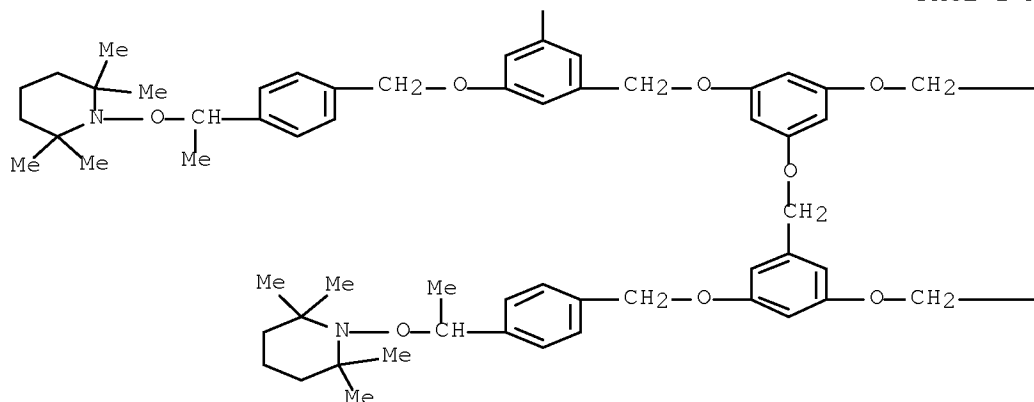
IT 492446-79-4P

(synthesis of multifunctional TEMPO-based radical initiators for production of six-arm star polymers)

RN 492446-79-4 HCAPLUS

CN Piperidine, 1,1',1'',1''',1'''',1'''''-[1,3,5-benzenetriyltris[oxymethylene-5,1,3-benzenetriylbis(oxymethylene-4,1-phenyleneethylideneoxy)]]hexakis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)





CC 35-3 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 67
 IT 492446-76-1P 492446-77-2P 492446-78-3P
 (in synthesis of multifunctional TEMPO-based radical initiators for
 production of six-arm star polymers)
 IT 178625-97-3P 209550-23-2P 209550-24-3P
 (in synthesis of multifunctional TEMPO-based radical initiators for
 production of six-arm star polymers)
 IT 492446-79-4P
 (synthesis of multifunctional TEMPO-based radical initiators for
 production of six-arm star polymers)
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 23 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:626615 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:338264
 TITLE: Synthesis of end-functionalized polymer with
 cyclodextrin based on tempo-mediated radical
 polymerization
 AUTHOR(S): Narumi, Atsushi; Miura, Yutaka; Satoh, Toshifumi;
 Kaga, Harumi; Kakuchi, Toyoji

CORPORATE SOURCE: Div. Molecular Chem., Grad. Sch. Eng., Hokkaido Univ., Sapporo, 060-8628, Japan

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(2), 279-280
CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer Chemistry

DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: English

ED Entered STN: 20 Aug 2002

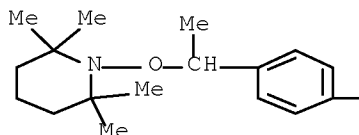
AB Polystyrene was end-functionalized with a cyclic oligosacchamide, cyclodextrin (CD). First, mono-6-[4-[1'-(2'',2'',6'',6''-tetramethyl-1''-piperidinyloxy)ethyl]benzamido]-per-2,3,6-acetyl- β -cyclodextrin was prepared and was used as initiator to polymerize styrene. The resulting polymer was deacetylated. A reversed-type micelle using the polymer with the β -CD core was prepared

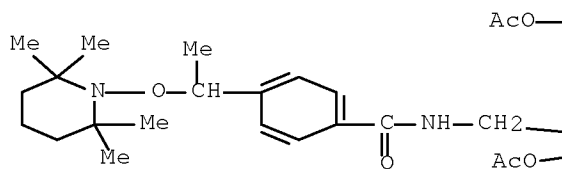
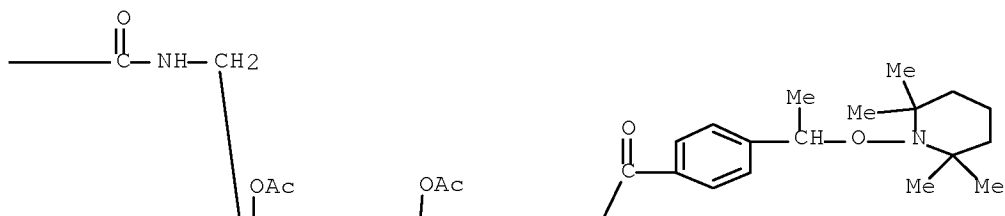
IT 474088-71-6P
(catalyst; in preparation of end-functionalized polymer with cyclodextrin based on tempo-mediated radical polymerization)

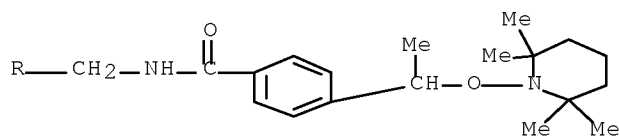
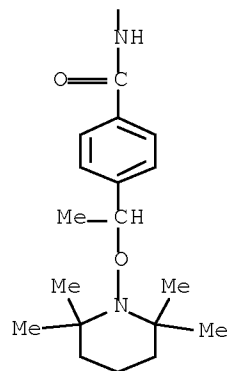
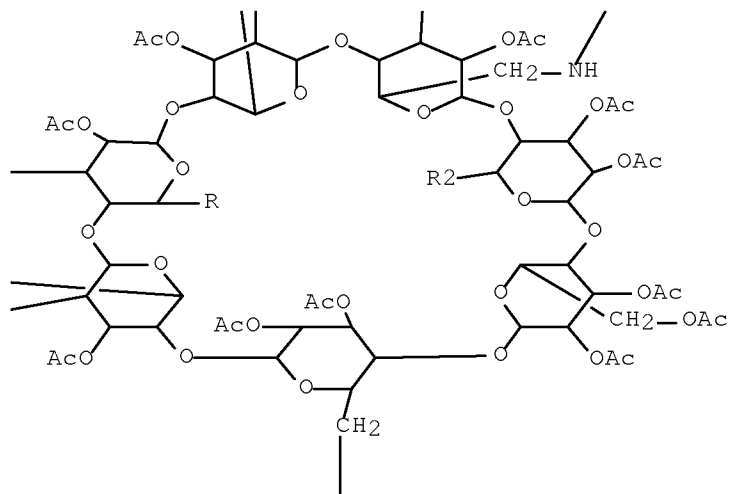
RN 474088-71-6 HCAPLUS

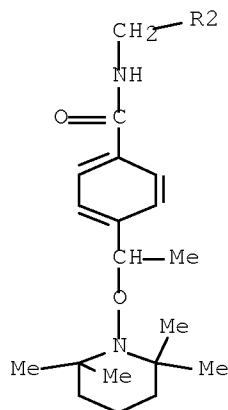
CN β -Cyclodextrin, 6A,6B,6C,6D,6E,6F-hexadeoxy-6A,6B,6C,6D,6E,6F-hexakis[[4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]benzoyl]amino]-, 2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G,6G-pentadecaacetate (9CI) (CA INDEX NAME)

PAGE 1-A

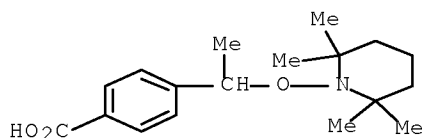








IT 433682-25-8
 (in preparation of end-functionalized polymer with
 cyclodextrin based on tempo-mediated radical polymerization)
 RN 433682-25-8 HCAPLUS
 CN Benzoic acid, 4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]-
 (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 44
 IT 474088-71-6P
 (catalyst; in preparation of end-functionalized polymer with
 cyclodextrin based on tempo-mediated radical polymerization)
 IT 108-24-7, Acetic anhydride 29390-67-8, 6-Amino-6-deoxy-β-
 cyclodextrin 433682-25-8
 (in preparation of end-functionalized polymer with
 cyclodextrin based on tempo-mediated radical polymerization)
 REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 24 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:466059 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:33695
 TITLE: N-alkoxy-4,4-dioxy-polyalkyl-piperidine compounds,
 their corresponding N-oxides and controlled
 radical polymerization therewith
 INVENTOR(S): Nesvadba, Peter; Zink, Marie-Odile; Wunderlich,
 Wiebke
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 87 pp.

DOCUMENT TYPE: CODEN: PIXXD2
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: English
 PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048205	A1	20020620	WO 2001-EP13072	20011112
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			WO 2001-EP13072	W 20011112
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			US 2003-450229	A1 20030611
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			US 2006-364537	A3 20060228

OTHER SOURCE(S): MARPAT 137:33695

ED Entered STN: 21 Jun 2002

AB Controlled (block) polymerization of unsatd. monomers is carried out in the presence of selected 1-alkoxy-2,2,6,6-tetramethylpiperidine, 1-alkoxy-2,2-diethyl-6,6-dimethylpiperidine, and/or 1-alkoxy-2,6-diethyl-2,3,6-trimethylpiperidine derivs. which are substituted in the 4-position by two oxygen atoms forming an open chain or cyclic ketal structure to prepare polymers with low polydispersity. Thus, polymerization of 117 mmol Bu acrylate in the presence of 1.78 mmol 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-1,4-dioxo-8-aza-spiro[4.5]decane at 145° for 5 h gave 74% of a polymer with Mw 8280, Mn 6460, and Mw/Mn 1.28.

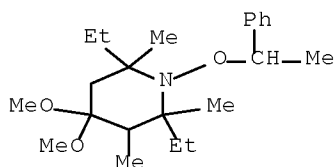
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(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and controlled radical polymerization therewith)

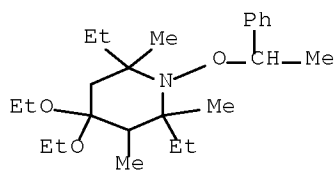
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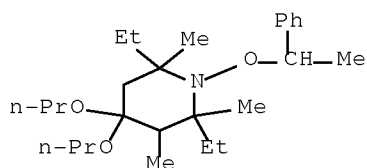
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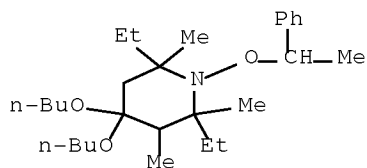
RN 437744-55-3 HCAPLUS

CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-4,4-dipropoxy- (CA INDEX NAME)



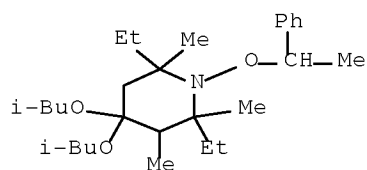
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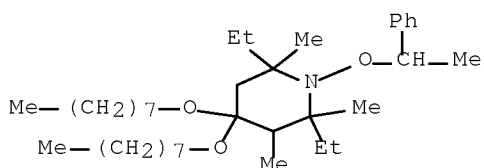
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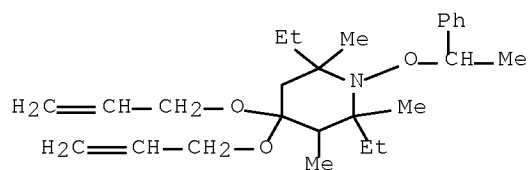
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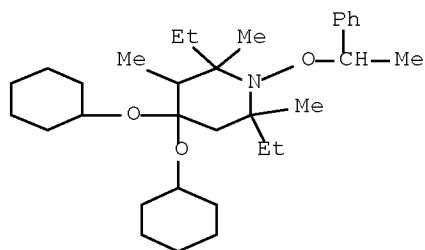
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CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



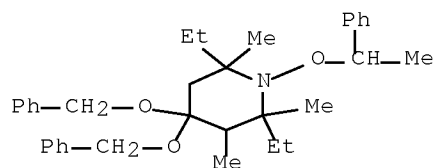
RN 437744-71-3 HCAPLUS

CN Piperidine, 4,4-bis(cyclohexyloxy)-2,6-diethyl-2,3,6-trimethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



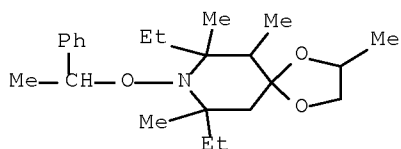
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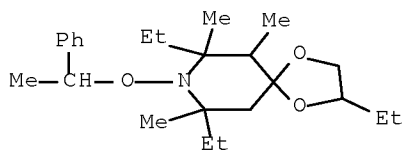
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CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-2,6,7,9-tetramethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



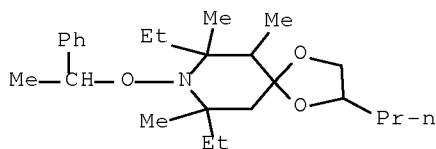
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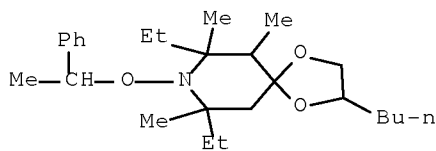
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CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-2-propyl- (CA INDEX NAME)



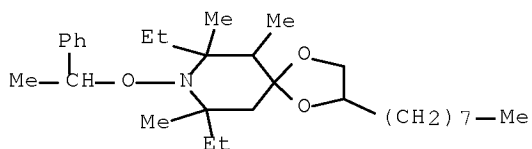
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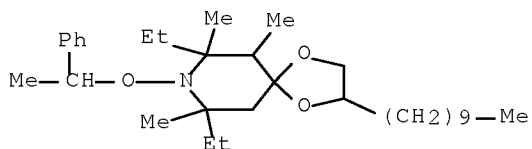
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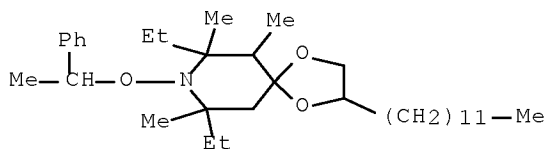
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CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-decyl-7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



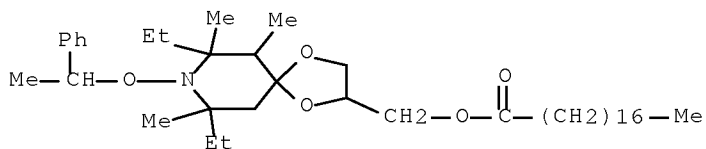
RN 437745-03-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-dodecyl-7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



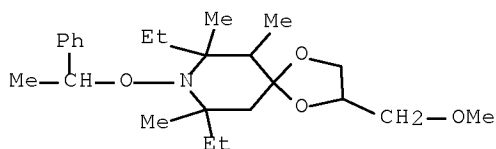
RN 437745-14-7 HCAPLUS

CN Octadecanoic acid, [7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl ester (CA INDEX NAME)



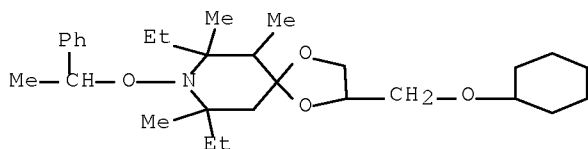
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CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-2-(methoxymethyl)-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



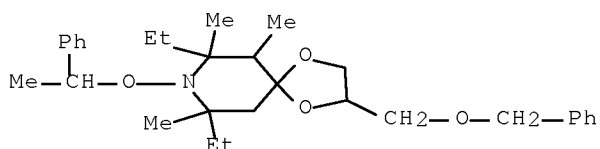
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CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



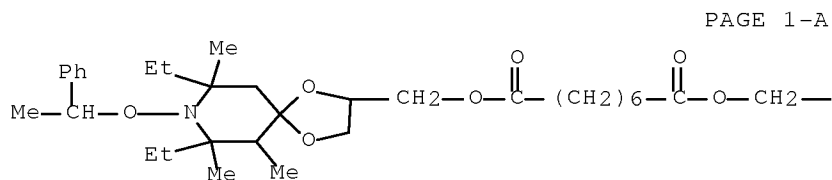
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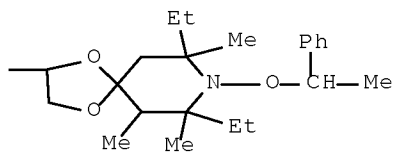
CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-2-[(phenylmethoxy)methyl]- (CA INDEX NAME)



RN 437745-34-1 HCAPLUS

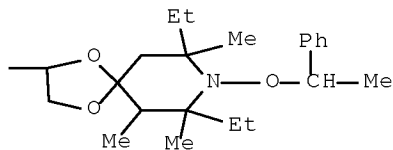
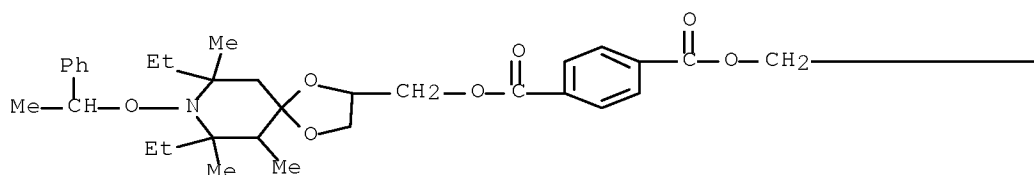
CN Octanedioic acid, bis[[7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)





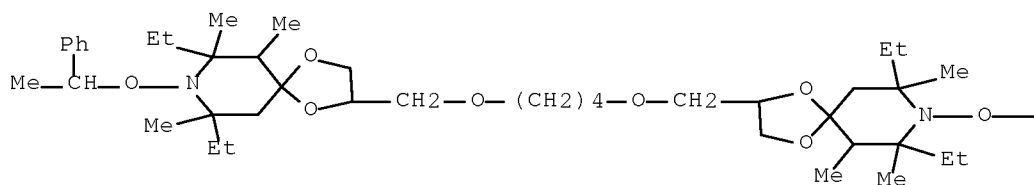
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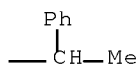
CN 1,4-Benzenedicarboxylic acid, bis[[7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-1,4-dioxaspiro[4.5]dec-2-yl]methyl] ester (9CI)
(CA INDEX NAME)



RN 437745-42-1 HCAPLUS

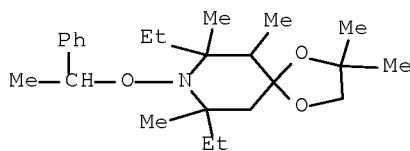
CN 1,4-Dioxaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (9CI) (CA INDEX NAME)





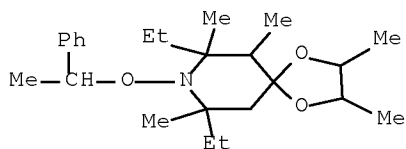
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CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-2,2,6,7,9-pentamethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



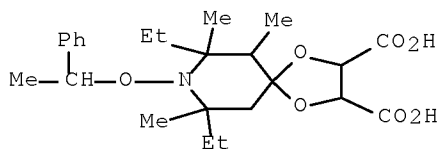
RN 437745-50-1 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-2,3,6,7,9-pentamethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



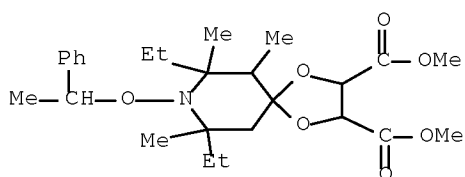
RN 437745-70-5 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



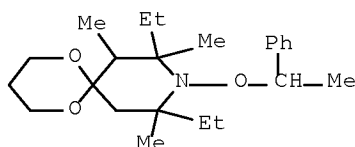
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CN 1,4-Dioxo-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,9-diethyl-6,7,9-trimethyl-8-(1-phenylethoxy)-, dimethyl ester (9CI) (CA INDEX NAME)



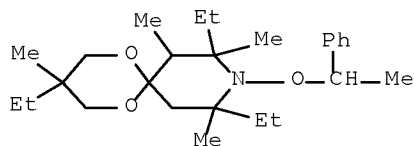
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CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,10-diethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



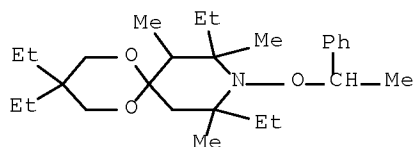
RN 437745-86-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,8,10-triethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



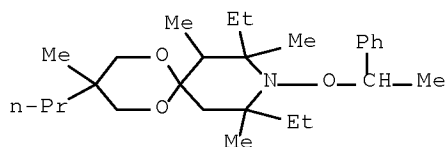
RN 437745-90-9 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3,8,10-tetraethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



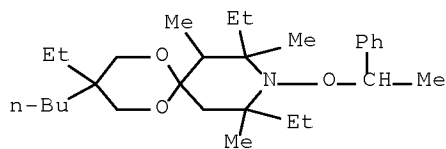
RN 437745-94-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-3-propyl- (CA INDEX NAME)



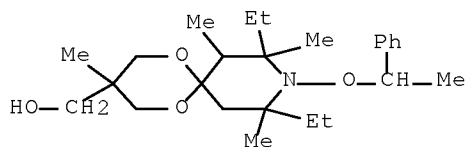
RN 437745-98-7 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-butyl-3,8,10-triethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



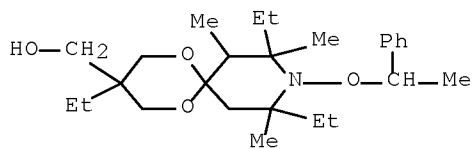
RN 437746-06-0 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



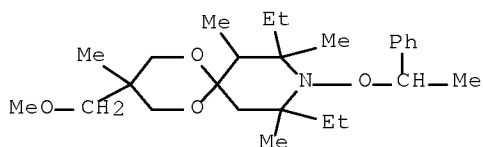
RN 437746-10-6 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 3,8,10-triethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



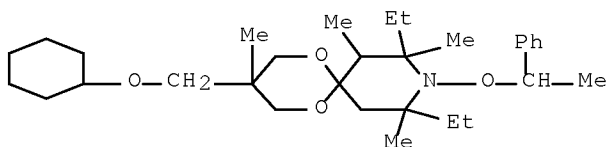
RN 437746-14-0 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,10-diethyl-3-(methoxymethyl)-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



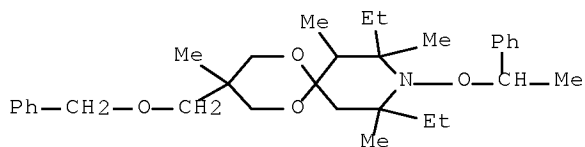
RN 437746-18-4 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



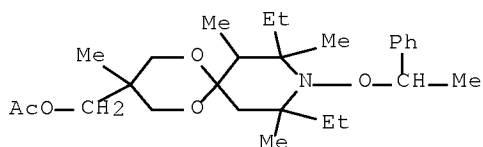
RN 437746-22-0 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-3-[(phenylmethoxy)methyl]- (CA INDEX NAME)



RN 437746-26-4 HCAPLUS

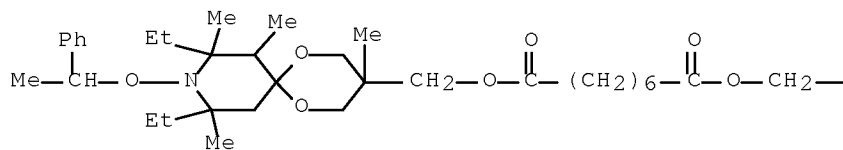
CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-, acetate (ester) (9CI) (CA INDEX NAME)



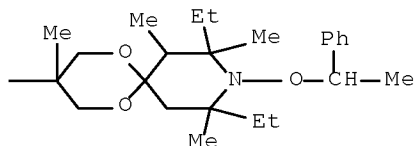
RN 437746-30-0 HCAPLUS

CN Octanedioic acid, bis[[8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-1,5-dioxo-9-azaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



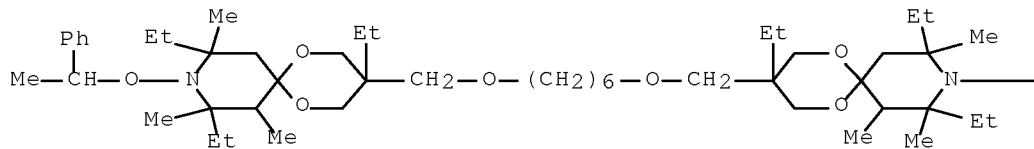
PAGE 1-B



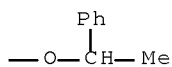
RN 437746-34-4 HCAPLUS

CN 1,5-Dioxaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[3,8,10-triethyl-7,8,10-trimethyl-9-(1-phenylethoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A

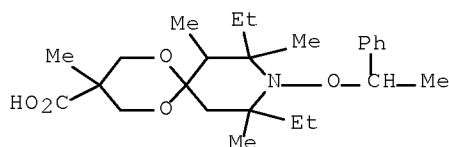


PAGE 1-B



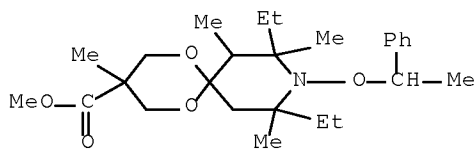
RN 437746-38-8 HCAPLUS

CN 1,5-Dioxaspiro[5.5]undecane-3-carboxylic acid, 8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



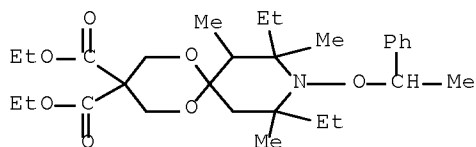
RN 437746-41-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-carboxylic acid,
8,10-diethyl-3,7,8,10-tetramethyl-9-(1-phenylethoxy)-, methyl ester
(CA INDEX NAME)



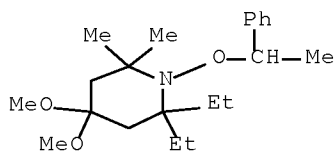
RN 437746-44-6 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid,
8,10-diethyl-7,8,10-trimethyl-9-(1-phenylethoxy)-, diethyl ester (9CI)
(CA INDEX NAME)



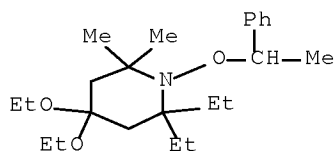
RN 437746-56-0 HCAPLUS

CN Piperidine, 2,2-diethyl-4,4-dimethoxy-6,6-dimethyl-1-(1-phenylethoxy)-
(CA INDEX NAME)

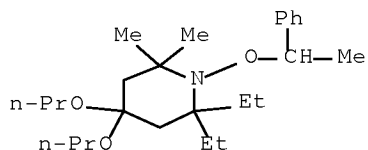


RN 437746-60-6 HCAPLUS

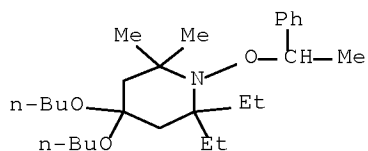
CN Piperidine, 4,4-diethoxy-2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)-
(CA INDEX NAME)



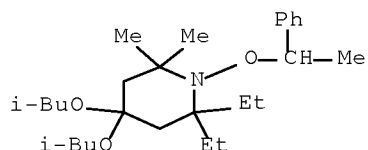
RN 437746-64-0 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)-4,4-dipropoxy-
(CA INDEX NAME)

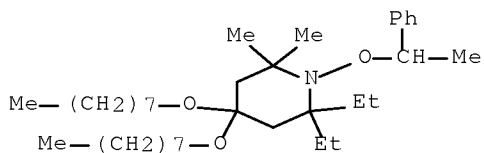
RN 437746-68-4 HCAPLUS

CN Piperidine, 4,4-dibutoxy-2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)-
(CA INDEX NAME)

RN 437746-72-0 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-4,4-bis(2-methylpropoxy)-1-(1-phenylethoxy)-
(CA INDEX NAME)

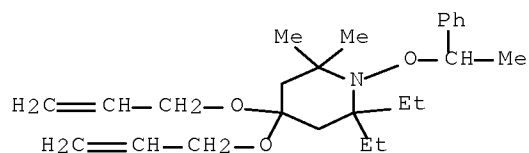
RN 437746-76-4 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-4,4-bis(octyloxy)-1-(1-phenylethoxy)-
(CA INDEX NAME)

10/519,030

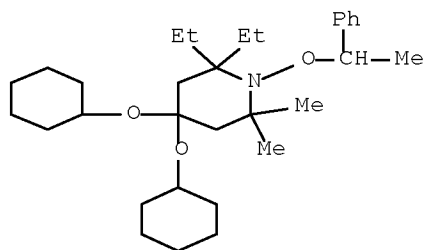
RN 437746-80-0 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



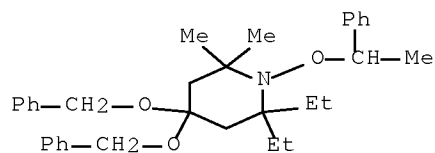
RN 437746-84-4 HCAPLUS

CN Piperidine, 4,4-bis(cyclohexyloxy)-2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



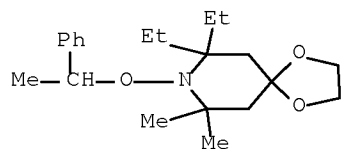
RN 437746-88-8 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-(1-phenylethoxy)-4,4-bis(phenylmethoxy)- (CA INDEX NAME)



RN 437746-92-4 HCAPLUS

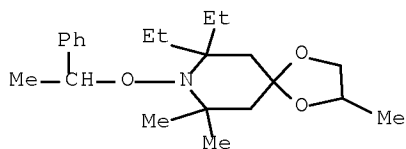
CN 1,4-Dioxaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



10/519,030

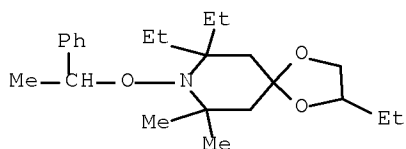
RN 437746-96-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-2,9,9-trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



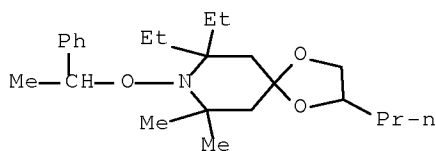
RN 437747-00-7 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,7,7-triethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



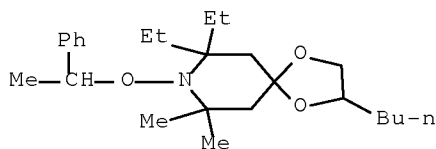
RN 437747-03-0 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-2-propyl- (CA INDEX NAME)



RN 437747-07-4 HCAPLUS

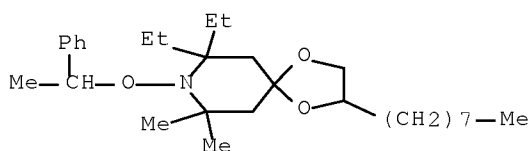
CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-butyl-7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 437747-11-0 HCAPLUS

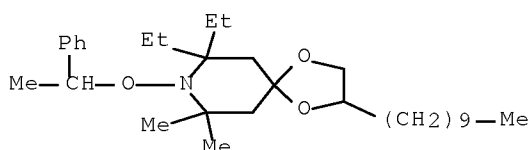
10/519,030

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-2-octyl-8-(1-phenylethoxy)- (CA INDEX NAME)



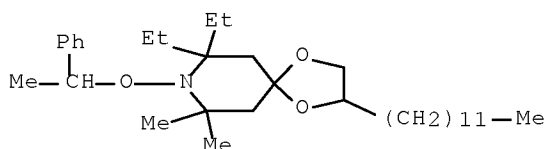
RN 437747-15-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-decyl-7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



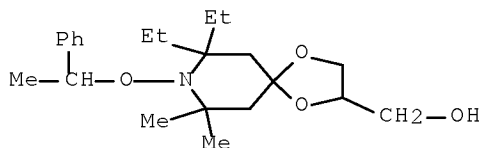
RN 437747-19-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-dodecyl-7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



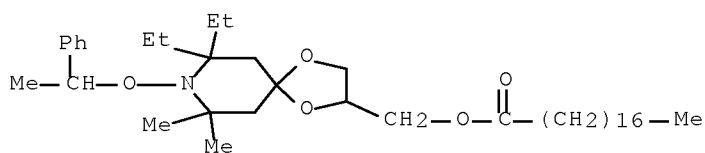
RN 437747-23-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



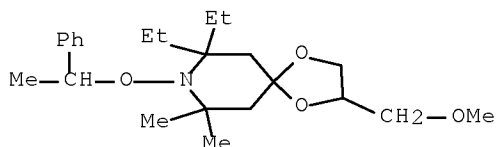
RN 437747-31-4 HCAPLUS

CN Octadecanoic acid, [7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl ester (CA INDEX NAME)



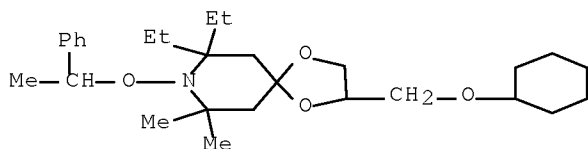
RN 437747-39-2 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-2-(methoxymethyl)-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



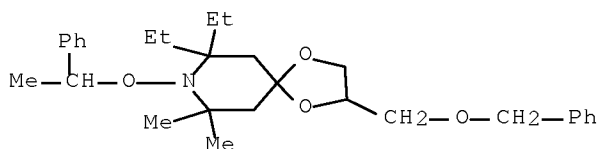
RN 437747-42-7 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



RN 437747-45-0 HCAPLUS

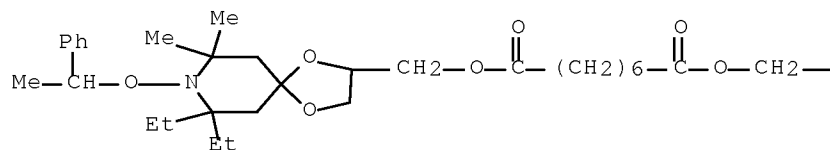
CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-2-[(phenylmethoxy)methyl]- (CA INDEX NAME)



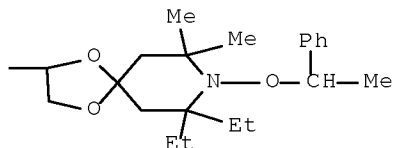
RN 437747-48-3 HCAPLUS

CN Octanedioic acid, bis[[7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



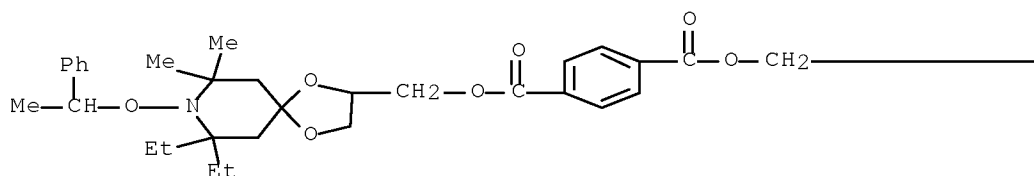
PAGE 1-B



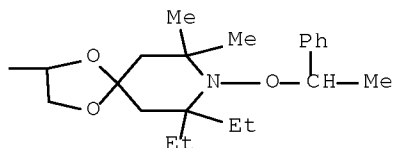
RN 437747-51-8 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis[[7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-1,4-dioxaspiro[4.5]dec-2-yl]methyl] ester (9CI)
(CA INDEX NAME)

PAGE 1-A



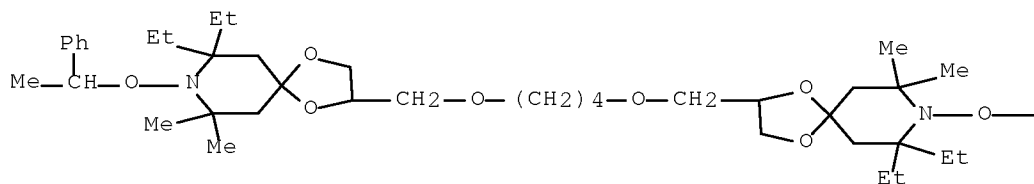
PAGE 1-B



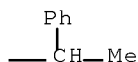
RN 437747-54-1 HCAPLUS

CN 1,4-Dioxaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxyethylene)]bis[7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A

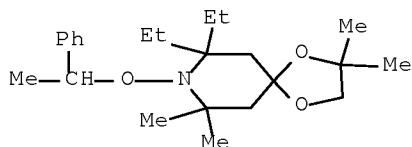


PAGE 1-B



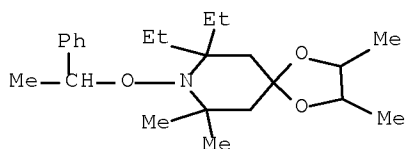
RN 437747-57-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-2,2,9,9-tetramethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



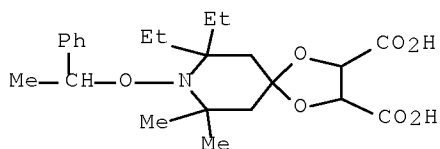
RN 437747-61-0 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-2,3,9,9-tetramethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



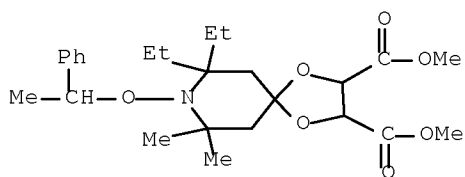
RN 437747-70-1 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



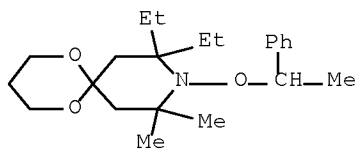
RN 437747-74-5 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2,3-dicarboxylic acid,
7,7-diethyl-9,9-dimethyl-8-(1-phenylethoxy)-, dimethyl ester (9CI)
(CA INDEX NAME)



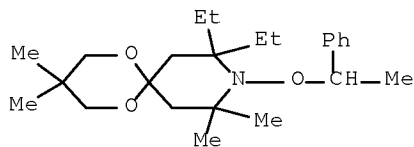
RN 437747-77-8 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-10,10-dimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



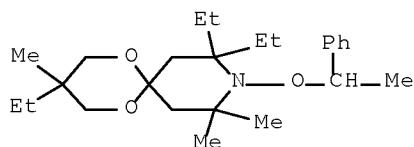
RN 437747-81-4 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3,3,10,10-tetramethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



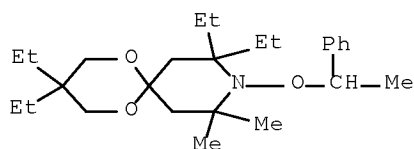
RN 437747-84-7 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,8,8-triethyl-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



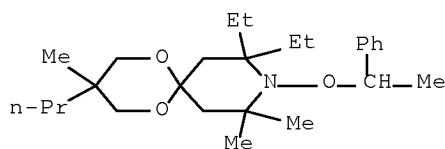
RN 437747-87-0 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3,8,8-tetraethyl-10,10-dimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



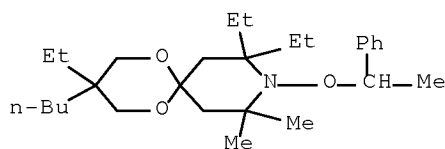
RN 437747-90-5 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-3-propyl- (CA INDEX NAME)



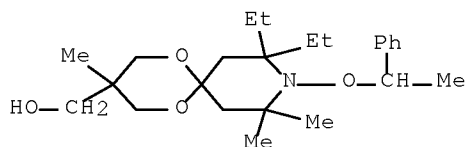
RN 437747-94-9 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-butyl-3,8,8-triethyl-10,10-dimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



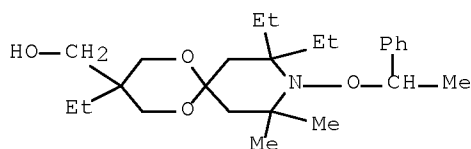
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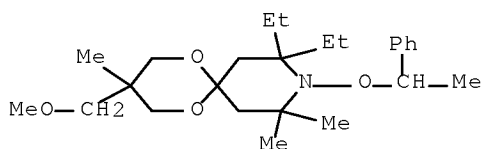
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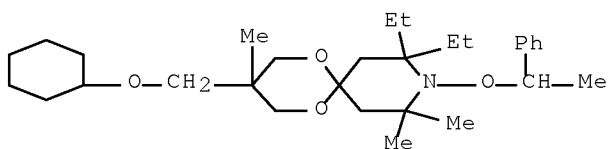
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CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3-(methoxymethyl)-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



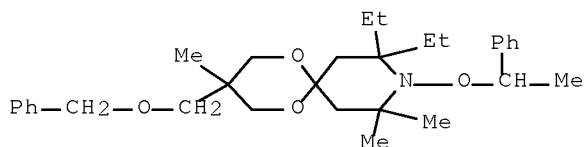
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CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



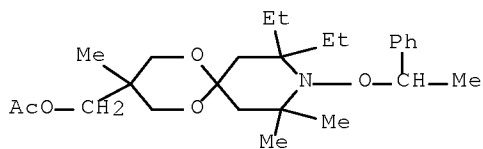
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CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-3-[(phenylmethoxy)methyl]- (CA INDEX NAME)



RN 437748-15-7 HCAPLUS

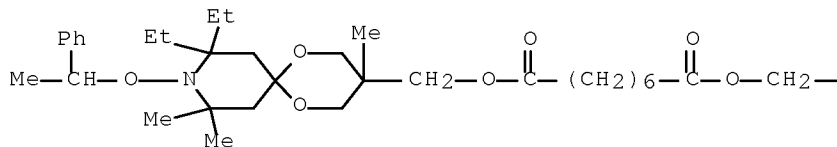
CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-, acetate (ester) (9CI) (CA INDEX NAME)



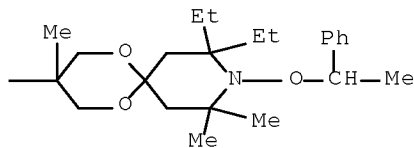
RN 437748-18-0 HCAPLUS

CN Octanedioic acid, bis[[8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)-1,5-dioxo-9-azaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

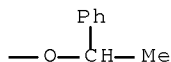
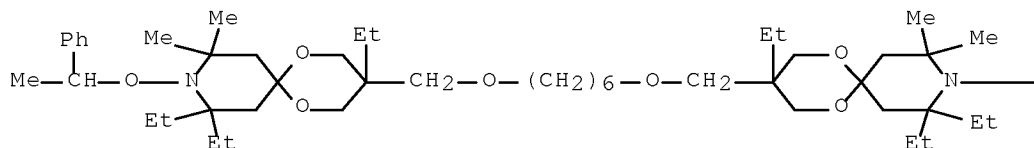


PAGE 1-B

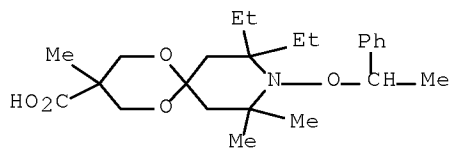


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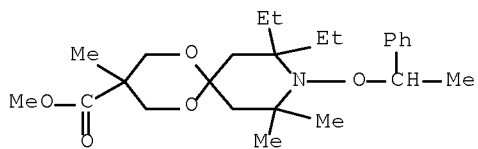
CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[3,8,8-triethyl-10,10-dimethyl-9-(1-phenylethoxy)- (9CI) (CA INDEX NAME)



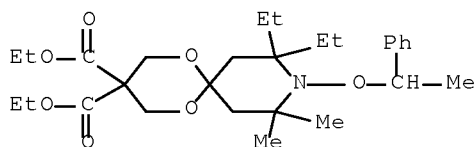
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 8,8-diethyl-3,10,10-trimethyl-9-(1-phenylethoxy)- (CA INDEX NAME)



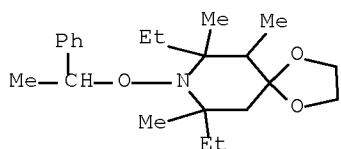
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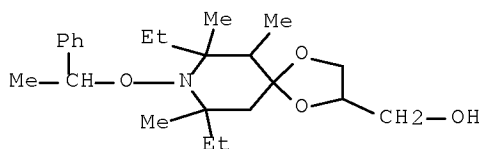
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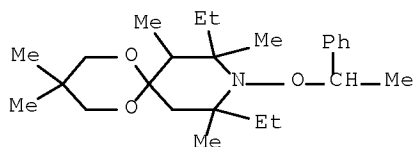
IT 437744-12-2P 437744-19-9P 437744-23-5P
 (N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and
 controlled radical polymerization therewith)
 RN 437744-12-2 HCAPLUS
 CN 1,4-Dioxaspiro[4.5]undecane, 7,9-diethyl-6,7,9-trimethyl-8-(1-
 phenylethoxy)- (CA INDEX NAME)



RN 437744-19-9 HCAPLUS
 CN 1,4-Dioxaspiro[4.5]undecane-2-methanol, 7,9-diethyl-6,7,9-
 trimethyl-8-(1-phenylethoxy)- (CA INDEX NAME)

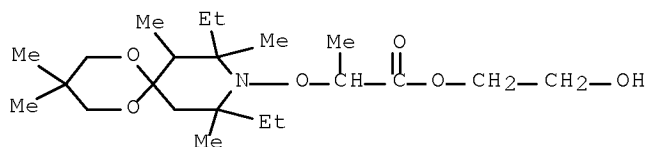


RN 437744-23-5 HCAPLUS
 CN 1,5-Dioxaspiro[5.5]undecane, 8,10-diethyl-3,3,7,8,10-pentamethyl-
 9-(1-phenylethoxy)- (CA INDEX NAME)



IT 437744-42-8P
 (N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and
 controlled radical polymerization therewith)
 RN 437744-42-8 HCAPLUS

CN Propanoic acid, 2-[(8,10-diethyl-3,3,7,8,10-pentamethyl-1,5-dioxaspiro[5.5]undec-9-yl)oxy]-, 2-hydroxyethyl ester (CA INDEX NAME)



IC ICM C08F004-00

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 28, 67

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437751-29-6

(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and
controlled radical polymerization therewith)

IT 376588-12-4P 376588-14-6P 376588-16-8P 437744-12-2P
437744-19-9P 437744-23-5P 437744-30-4P
437744-34-8P 437744-38-2P

(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and
controlled radical polymerization therewith)

IT 437744-42-8P

(N-alkoxy-4,4-dioxy-polyalkyl-piperidines, their N-oxides and
controlled radical polymerization therewith)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 25 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:465975 HCAPLUS Full-text

DOCUMENT NUMBER: 137:47610

TITLE: N-alkoxy-4,4-dioxy-polyalkyl-piperidine compounds
with glycidyl or alkylcarbonyl groups as
functional initiators for controlled radical
polymerization

INVENTOR(S): Fuso, Francesco; Wunderlich, Wiebke; Kramer,
Andreas; Fink, Jochen

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 83 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048109	A2	20020620	WO 2001-EP13071	20011112
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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OTHER SOURCE(S): MARPAT 137:47610

ED Entered STN: 21 Jun 2002

AB Controlled (block) polymerization of unsatd. monomers is carried out in the presence of selected glycidyl- or carbonyl-functional N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides having an open chain or cyclic ketal structure to prepare polymers with low polydispersity. Thus, polymerization of Bu acrylate in the presence of 0.1 mol% 8,10-diethyl-3,3,7,8,10-pentamethyl-9-[1-(4-oxiranylmethoxy-phenyl)-ethoxy]-1,5-dioxa-9-aza-spiro[5.5]undecane at 130° for 6 h gave a polymer with Mw 72,870, Mn 57,120, and Mw/Mn 1.28.

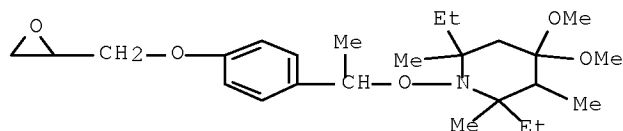
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(N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl
 or alkylcarbonyl groups as functional initiators for controlled
 radical polymerization)

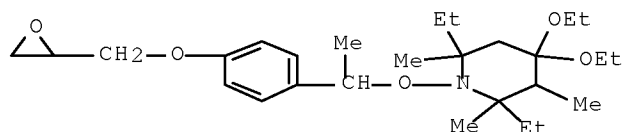
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CN Piperidine, 2,6-diethyl-4,4-dimethoxy-2,3,6-trimethyl-1-[1-[4-
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RN 437993-15-2 HCAPLUS

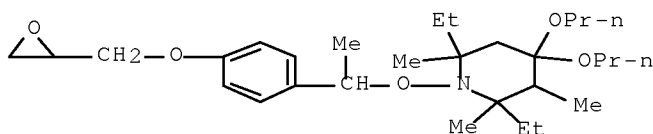
CN Piperidine, 4,4-diethoxy-2,6-diethyl-2,3,6-trimethyl-1-[1-[4-
 (oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



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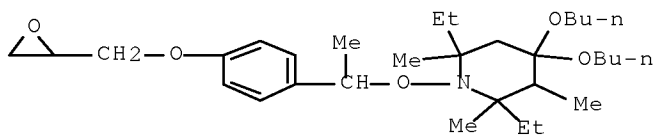
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CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-dipropoxy- (9CI) (CA INDEX NAME)



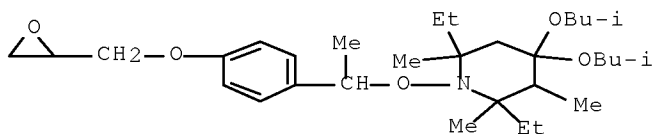
RN 437993-17-4 HCAPLUS

CN Piperidine, 4,4-dibutoxy-2,6-diethyl-2,3,6-trimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



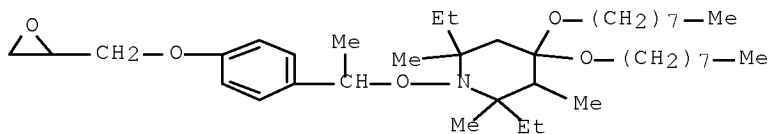
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CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-4,4-bis(2-methylpropoxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-19-6 HCAPLUS

CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-4,4-bis(octyloxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

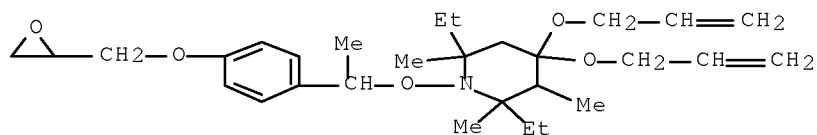


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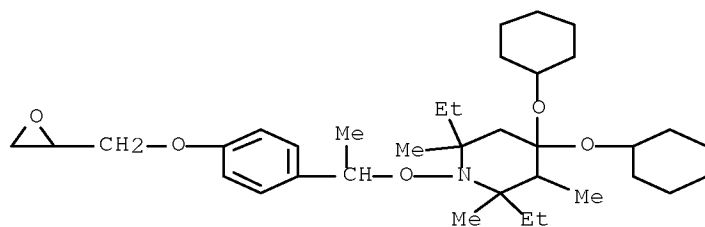
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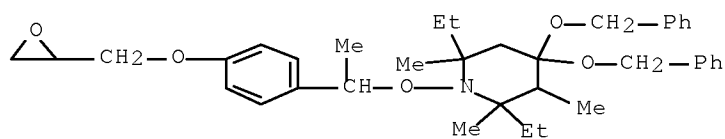
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CN Piperidine, 4,4-bis(cyclohexyloxy)-2,6-diethyl-2,3,6-trimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



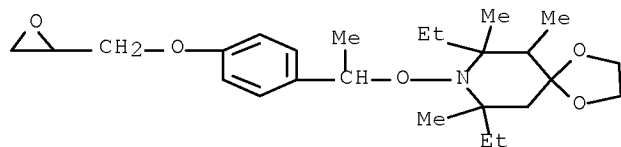
RN 437993-22-1 HCAPLUS

CN Piperidine, 2,6-diethyl-2,3,6-trimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)



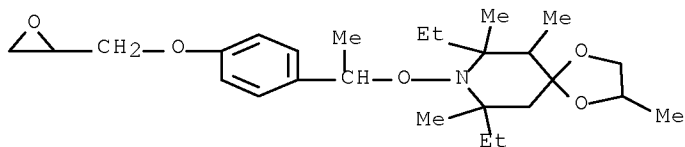
RN 437993-23-2 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



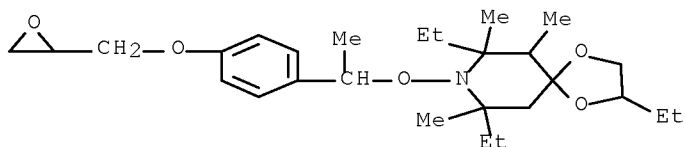
RN 437993-24-3 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-2,6,7,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



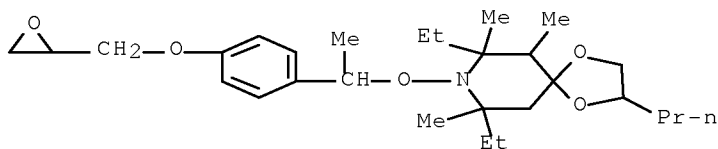
RN 437993-25-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,7,9-triethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



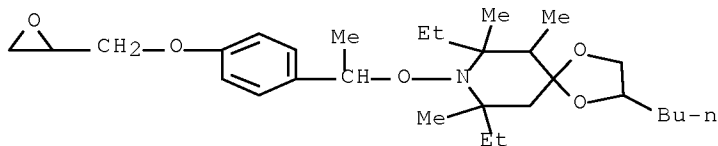
RN 437993-26-5 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-propyl- (9CI) (CA INDEX NAME)



RN 437993-27-6 HCAPLUS

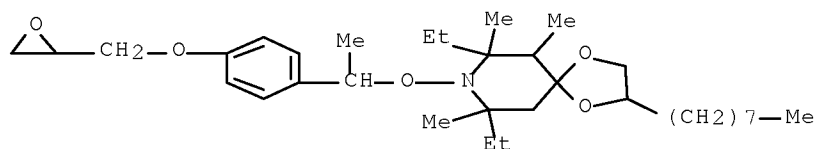
CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-butyl-7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-28-7 HCAPLUS

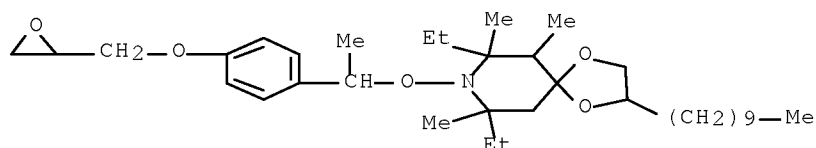
10/519,030

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-2-octyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



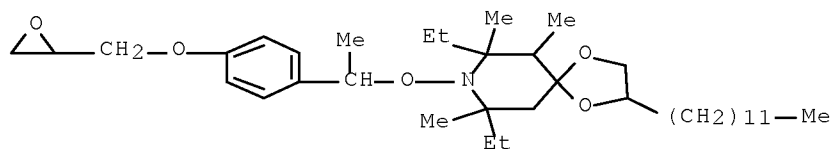
RN 437993-29-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-decyl-7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



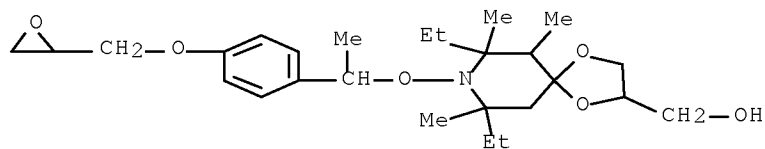
RN 437993-30-1 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-dodecyl-7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-31-2 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

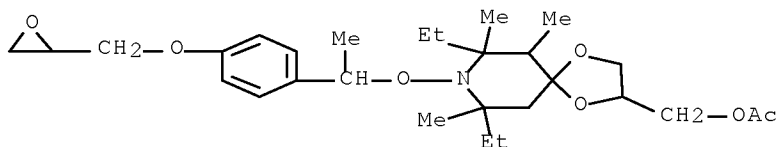


RN 437993-32-3 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,9-diethyl-6,7,9-

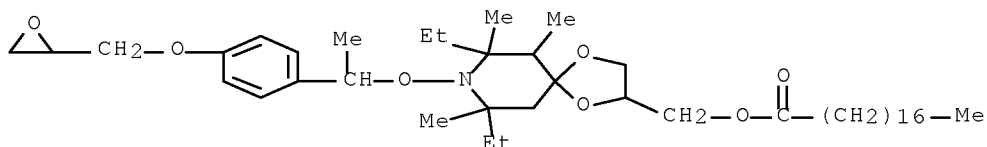
10/519,030

trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester)
(9CI) (CA INDEX NAME)



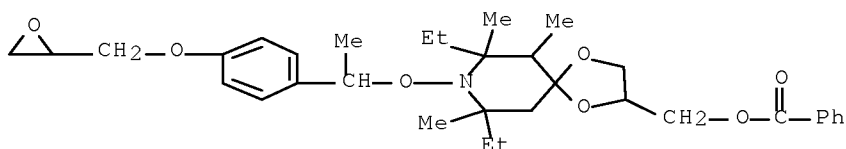
RN 437993-33-4 HCAPLUS

CN Octadecanoic acid, [7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxaspiro[4.5]dec-2-yl]methyl ester (9CI) (CA INDEX NAME)



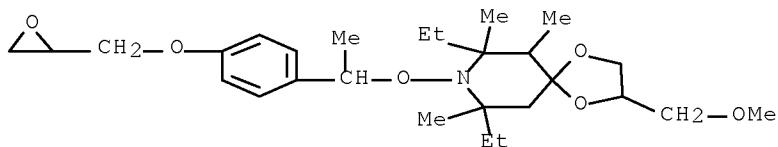
RN 437993-34-5 HCAPLUS

CN 1,4-Dioxaspiro[4.5]decane-2-methanol, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, benzoate (ester)
(9CI) (CA INDEX NAME)



RN 437993-35-6 HCAPLUS

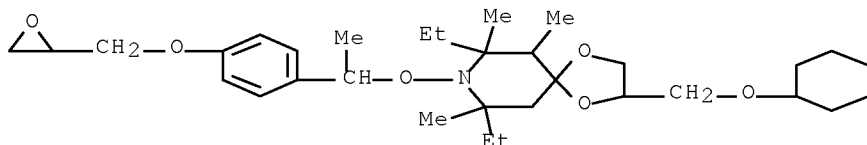
CN 1,4-Dioxaspiro[4.5]decane, 7,9-diethyl-2-(methoxymethyl)-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



10/519,030

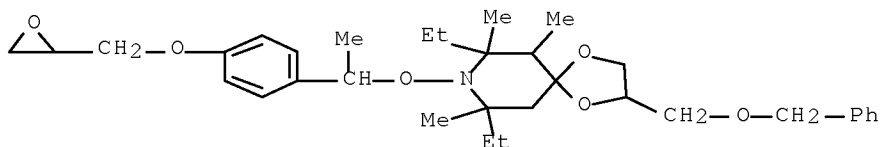
RN 437993-36-7 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



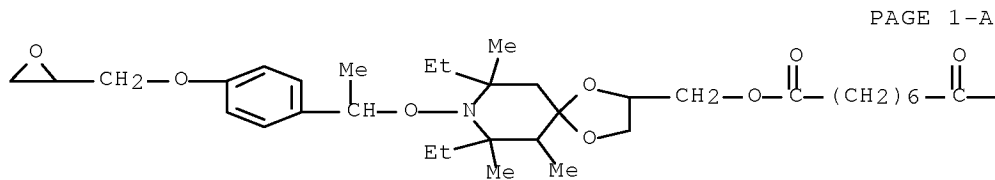
RN 437993-37-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)

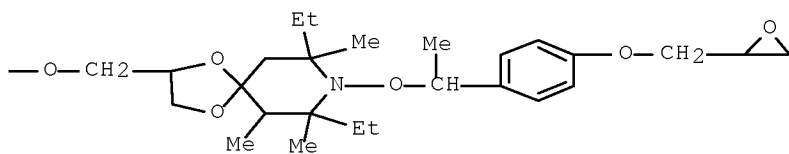


RN 437993-38-9 HCAPLUS

CN Octanedioic acid, bis[[7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)



PAGE 1-A



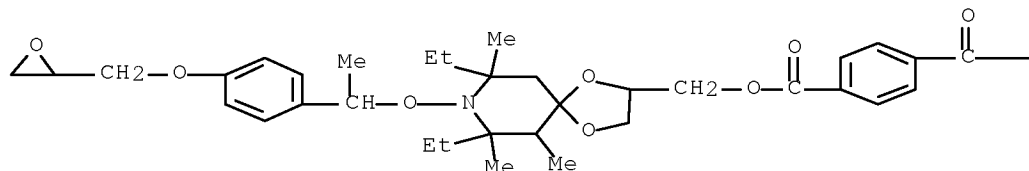
PAGE 1-B

RN 437993-39-0 HCAPLUS

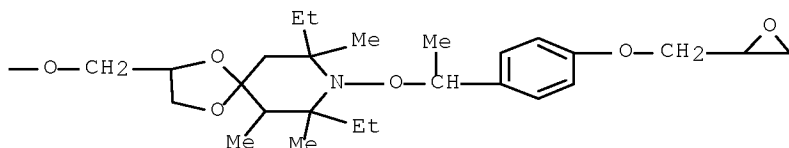
10/519,030

CN 1,4-Benzenedicarboxylic acid, bis[[7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



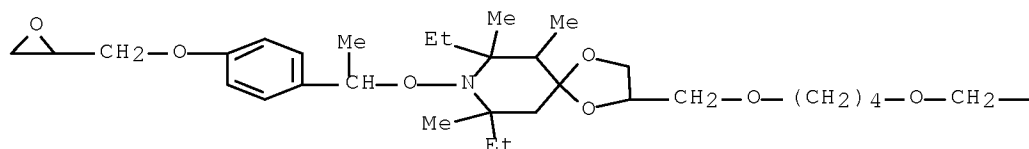
PAGE 1-B



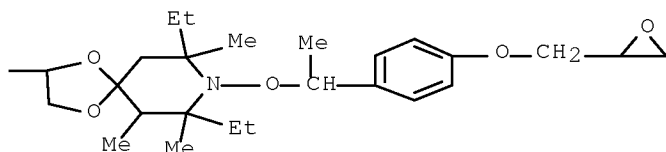
RN 437993-40-3 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

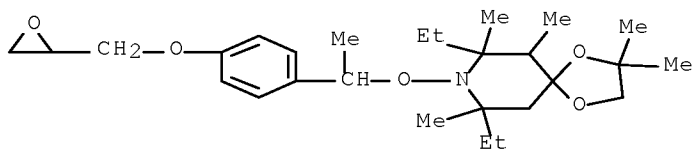


PAGE 1-B



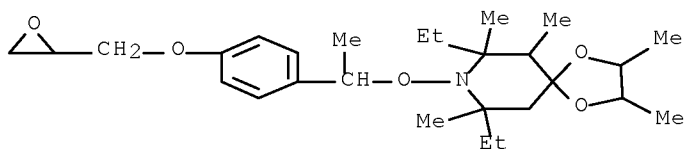
RN 437993-41-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-2,2,6,7,9-pentamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



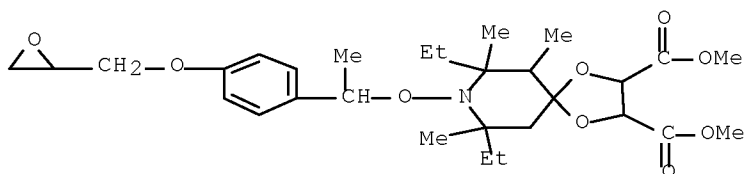
RN 437993-42-5 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,9-diethyl-2,3,6,7,9-pentamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



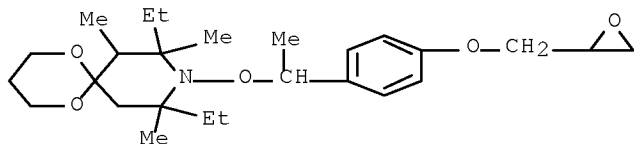
RN 437993-45-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,9-diethyl-6,7,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, dimethyl ester (9CI) (CA INDEX NAME)



RN 437993-46-9 HCAPLUS

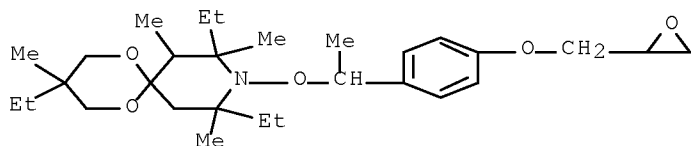
CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,10-diethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-48-1 HCAPLUS

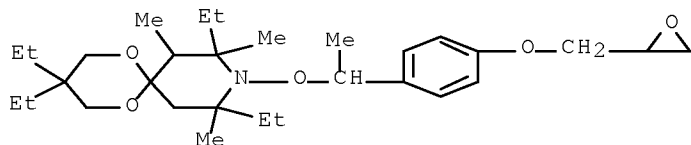
CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,8,10-triethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

NAME)



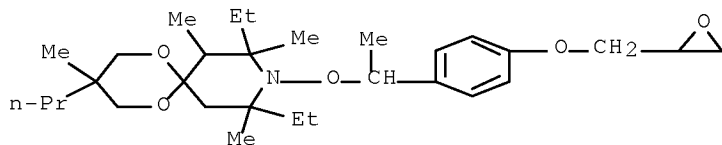
RN 437993-49-2 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3,8,10-tetraethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



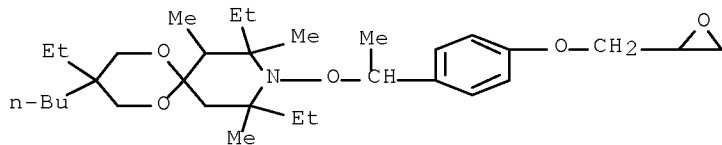
RN 437993-50-5 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-propyl- (9CI) (CA INDEX NAME)



RN 437993-51-6 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-butyl-3,8,10-triethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

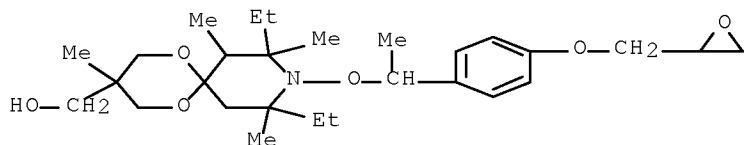


RN 437993-53-8 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 8,10-diethyl-3,7,8,10-

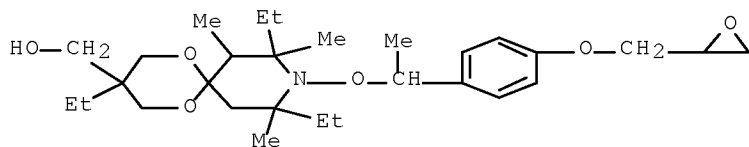
10/519,030

tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



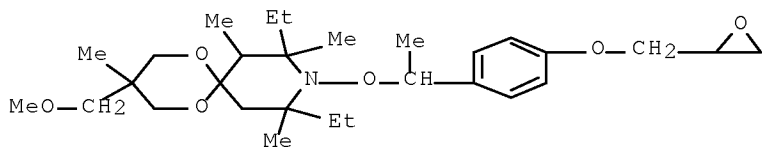
RN 437993-54-9 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3,8,10-triethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



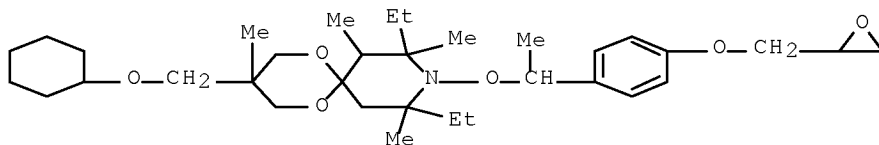
RN 437993-55-0 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 8,10-diethyl-3-(methoxymethyl)-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



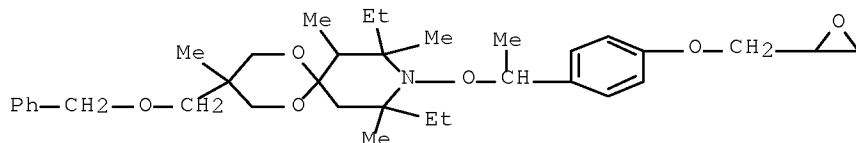
RN 437993-56-1 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



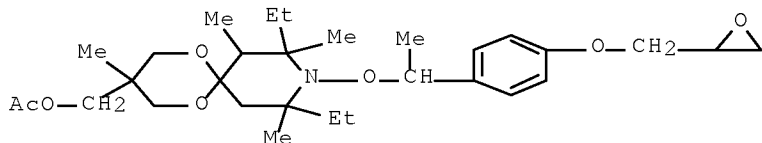
RN 437993-57-2 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-[(phenylmethoxy)methyl]- (9CI)
(CA INDEX NAME)



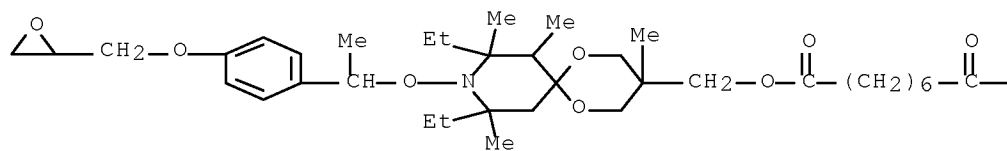
RN 437993-58-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)

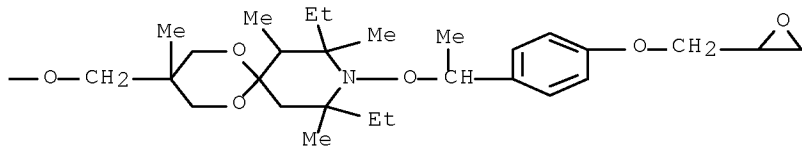


RN 437993-59-4 HCAPLUS

CN Octanedioic acid, bis[[8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,5-dioxo-9-azaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)



PAGE 1-A

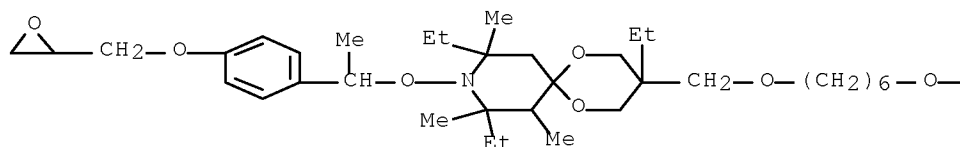


PAGE 1-B

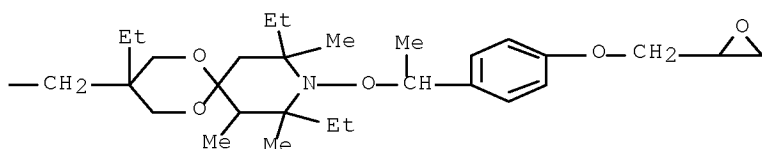
RN 437993-60-7 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxyethylene)]bis[3,8,10-triethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

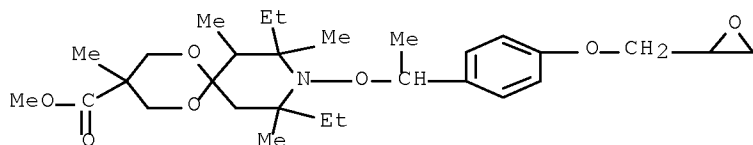


PAGE 1-B



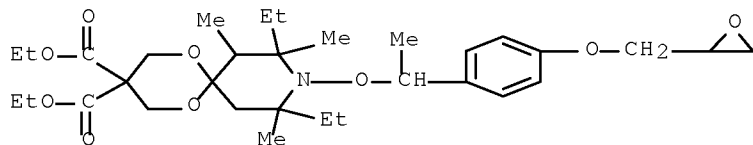
RN 437993-61-8 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid, 8,10-diethyl-3,7,8,10-tetramethyl-9-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 437993-62-9 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid, 8,10-diethyl-7,8,10-trimethyl-9-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-, diethyl ester (9CI) (CA INDEX NAME)

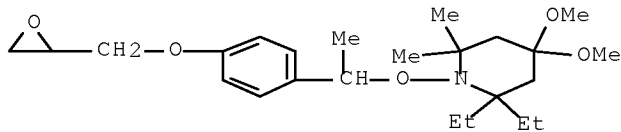


RN 437993-65-2 HCAPLUS

CN Piperidine, 2,2-diethyl-4,4-dimethoxy-6,6-dimethyl-1-[1-[4-

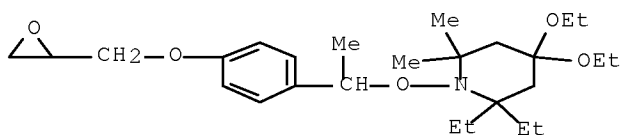
10/519,030

(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



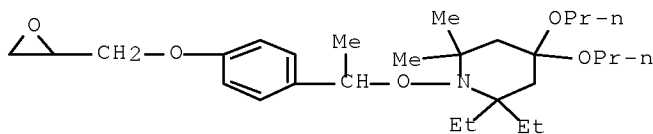
RN 437993-66-3 HCAPLUS

CN Piperidine, 4,4-diethoxy-2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



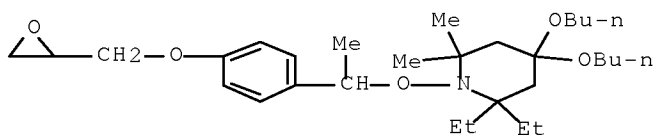
RN 437993-67-4 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-dipropoxy- (9CI) (CA INDEX NAME)



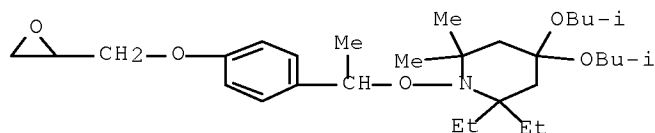
RN 437993-68-5 HCAPLUS

CN Piperidine, 4,4-dibutoxy-2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



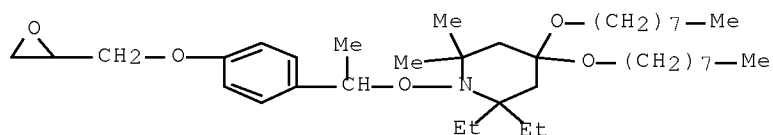
RN 437993-69-6 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-4,4-bis(2-methylpropoxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



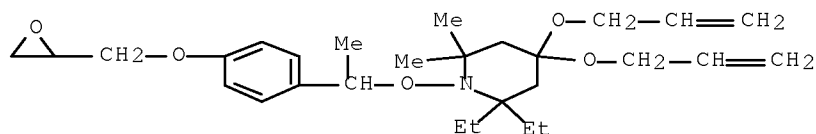
RN 437993-70-9 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-4,4-bis(octyloxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



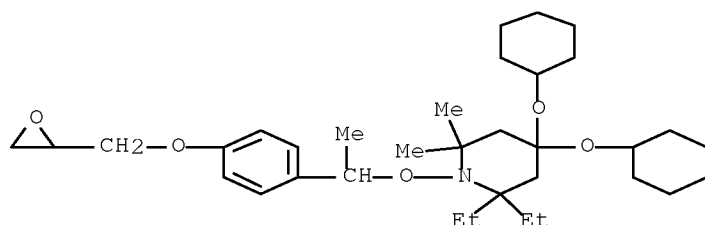
RN 437993-71-0 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)



RN 437993-72-1 HCAPLUS

CN Piperidine, 4,4-bis(cyclohexyloxy)-2,2-diethyl-6,6-dimethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

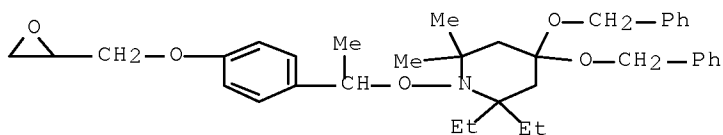


RN 437993-73-2 HCAPLUS

CN Piperidine, 2,2-diethyl-6,6-dimethyl-1-[1-[4-

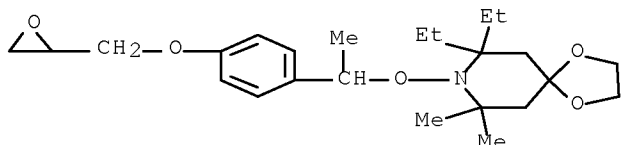
10/519,030

(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)



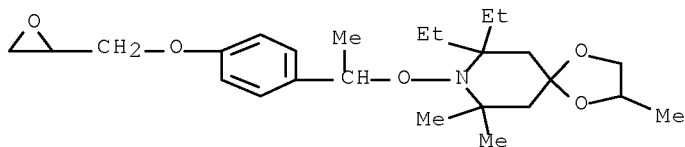
RN 437993-74-3 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



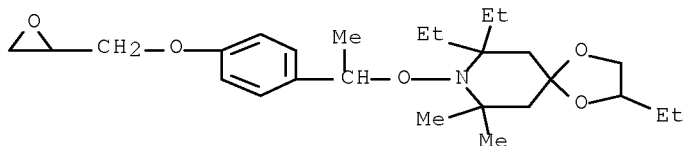
RN 437993-75-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-2,9,9-trimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



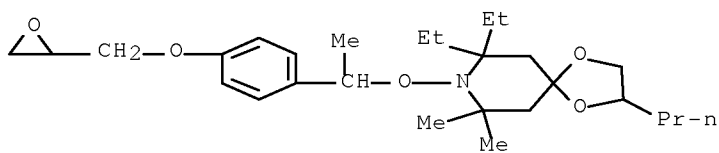
RN 437993-76-5 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,7,7-triethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



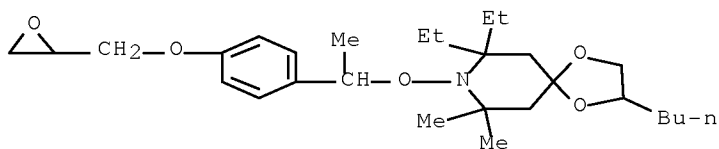
RN 437993-77-6 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-propyl- (9CI) (CA INDEX NAME)



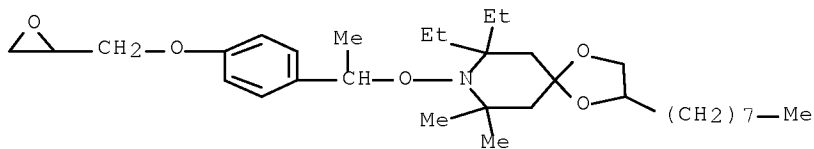
RN 437993-78-7 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-butyl-7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



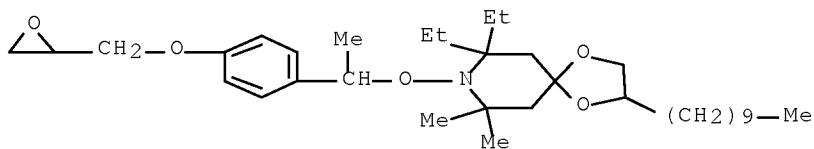
RN 437993-79-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-2-octyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



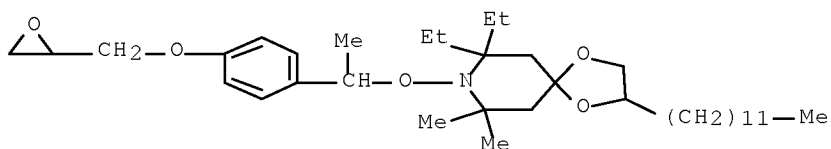
RN 437993-80-1 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-decyl-7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



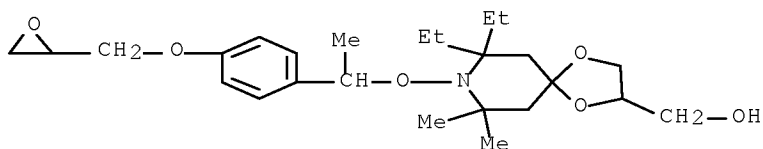
RN 437993-81-2 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-dodecyl-7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



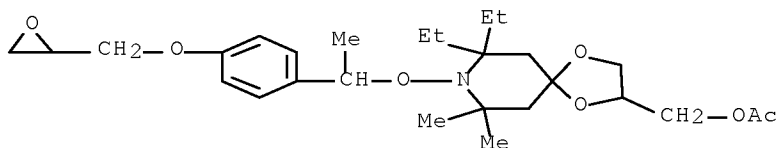
RN 437993-82-3 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



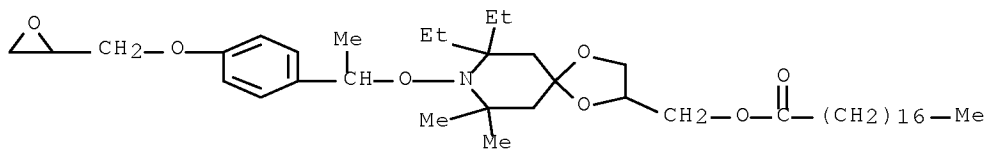
RN 437993-83-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



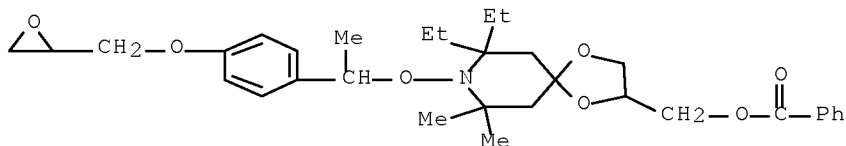
RN 437993-84-5 HCAPLUS

CN Octadecanoic acid, [7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl ester (9CI) (CA INDEX NAME)



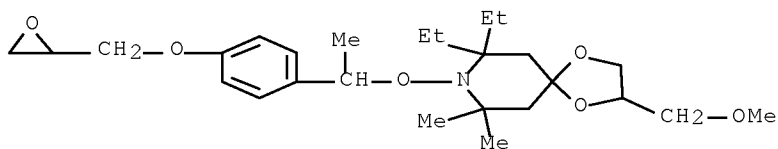
RN 437993-85-6 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-, benzoate (ester) (9CI) (CA INDEX NAME)



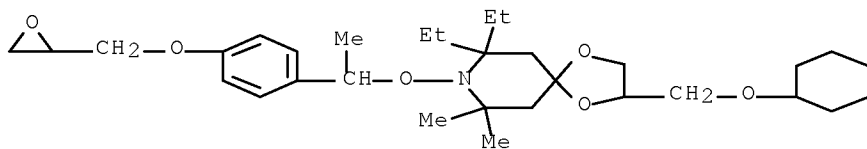
RN 437993-86-7 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-2-(methoxymethyl)-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



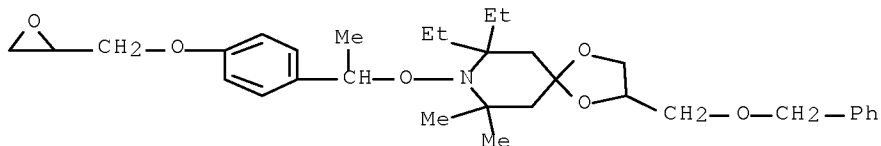
RN 437993-87-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-88-9 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



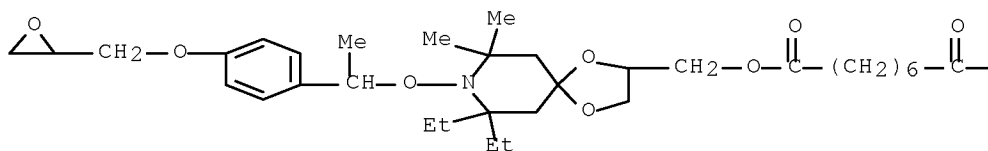
RN 437993-89-0 HCAPLUS

CN Octanedioic acid, bis[[7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxo-8-azaspiro[4.5]dec-2-

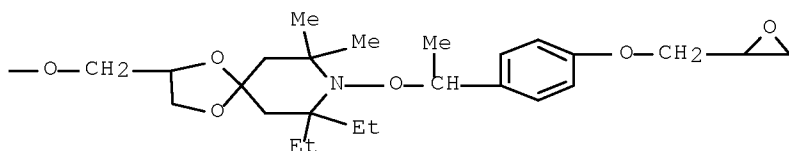
10/519,030

yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



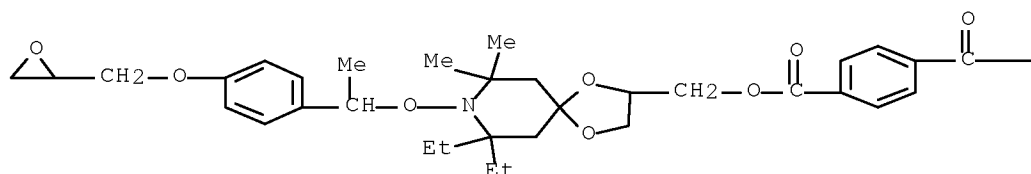
PAGE 1-B



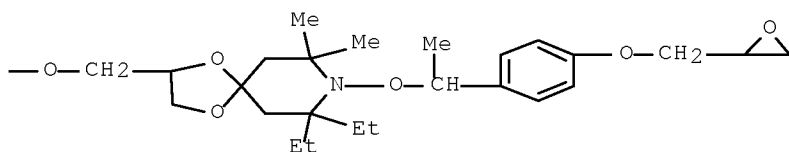
RN 437993-90-3 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis[[7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

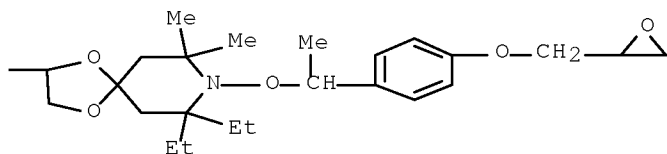
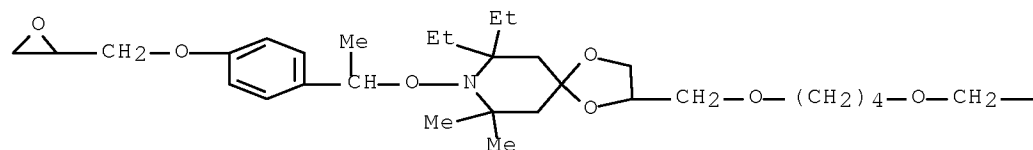


PAGE 1-B



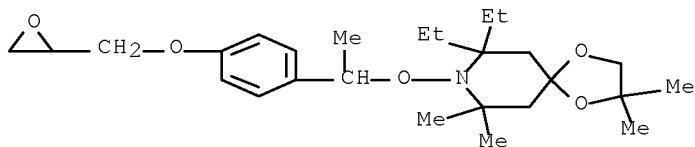
RN 437993-91-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



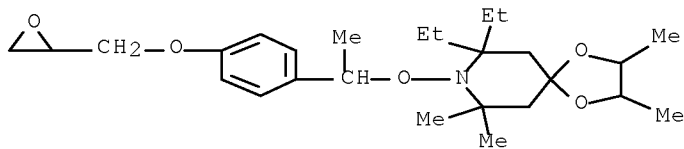
RN 437993-92-5 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-2,2,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-93-6 HCAPLUS

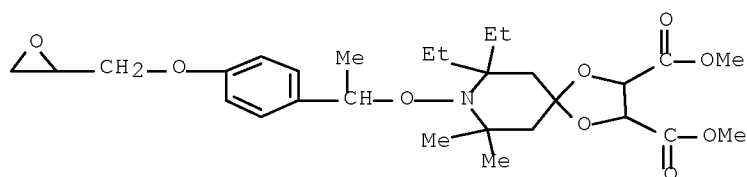
CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7-diethyl-2,3,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437993-96-9 HCAPLUS

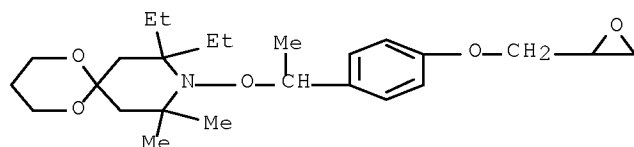
CN 1,4-Dioxo-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7-diethyl-9,9-dimethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, dimethyl ester (9CI) (CA INDEX NAME)

10/519,030



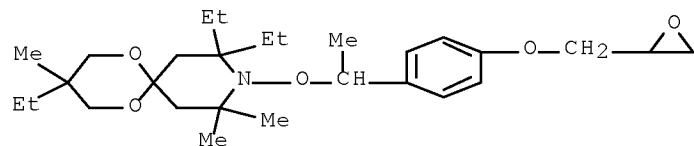
RN 437993-97-0 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



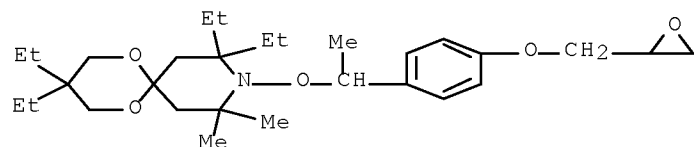
RN 437993-99-2 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,8,8-triethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



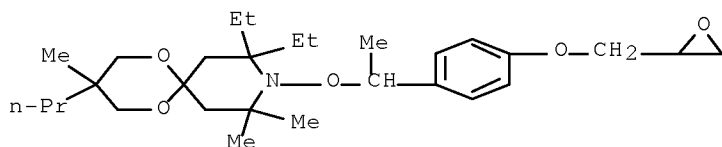
RN 437994-00-8 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3,8,8-tetraethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



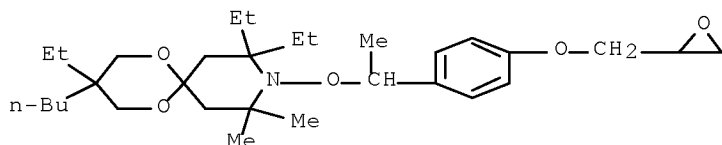
RN 437994-01-9 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-3-propyl- (9CI) (CA INDEX NAME)



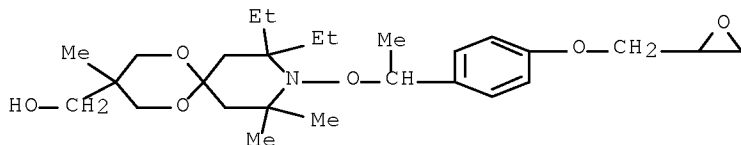
RN 437994-02-0 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-butyl-3,8,8-triethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



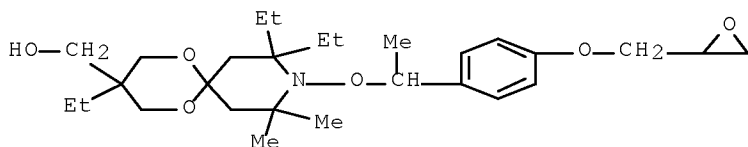
RN 437994-04-2 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



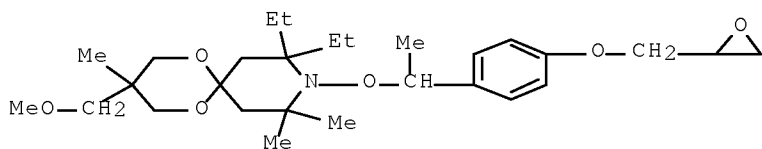
RN 437994-05-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 3,8,8-triethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



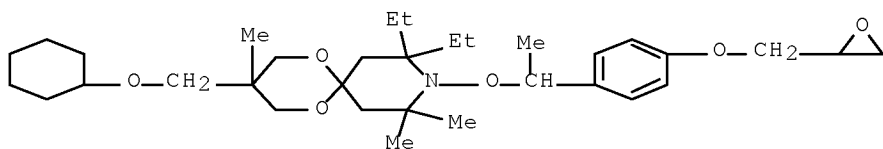
RN 437994-06-4 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3-(methoxymethyl)-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



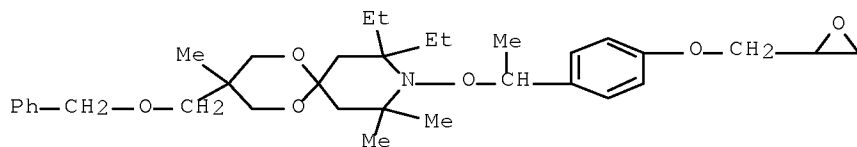
RN 437994-07-5 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]-(9CI) (CA INDEX NAME)



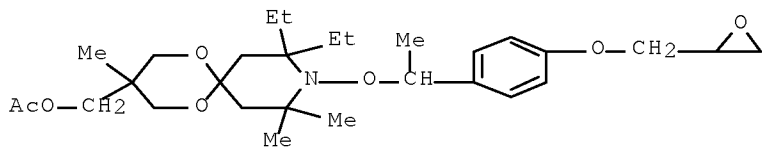
RN 437994-08-6 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]-3-[(phenylmethoxy)methyl]-(9CI) (CA INDEX NAME)



RN 437994-09-7 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



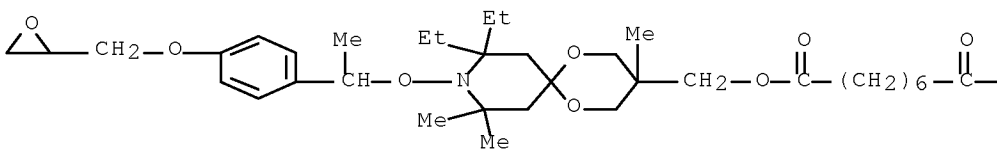
RN 437994-10-0 HCAPLUS

CN Octanedioic acid, bis[[8,8-diethyl-3,10,10-trimethyl-9-[1-[4-

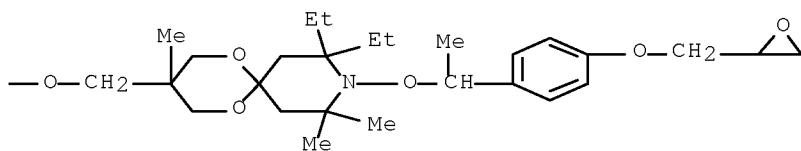
10/519,030

(oxiranylmethoxy)phenyl]ethoxy]-1,5-dioxo-9-azaspiro[5.5]undec-3-yl)methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



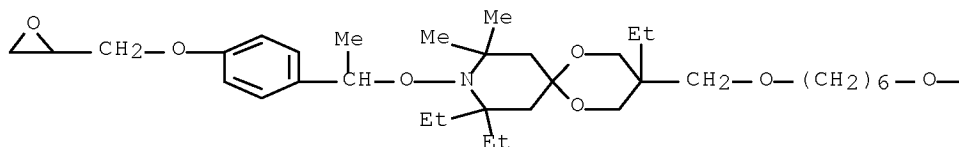
PAGE 1-B



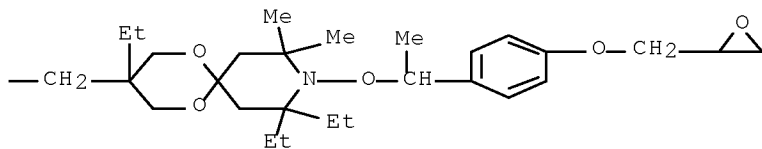
RN 437994-11-1 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[3,8,8-triethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

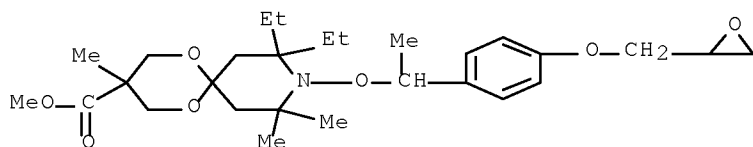


PAGE 1-B



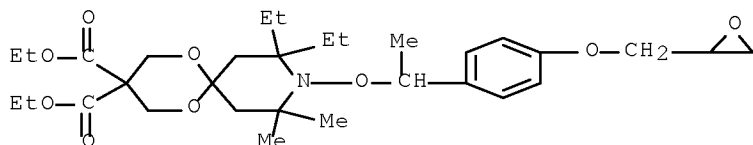
RN 437994-12-2 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-carboxylic acid, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)



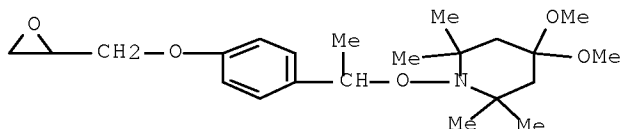
RN 437994-13-3 HCAPLUS

CN 1,5-Dioxaspiro[5.5]undecane-3,3-dicarboxylic acid,
8,8-diethyl-10,10-dimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-,
diethyl ester (9CI) (CA INDEX NAME)



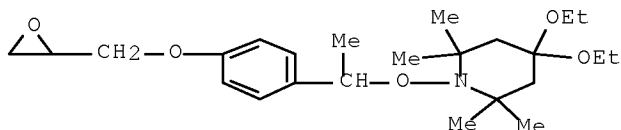
RN 437994-16-6 HCAPLUS

CN Piperidine, 4,4-dimethoxy-2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



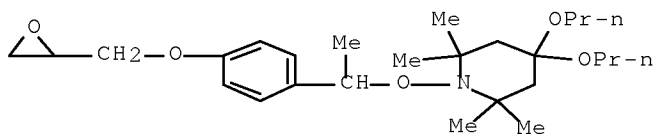
RN 437994-17-7 HCAPLUS

CN Piperidine, 4,4-diethoxy-2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



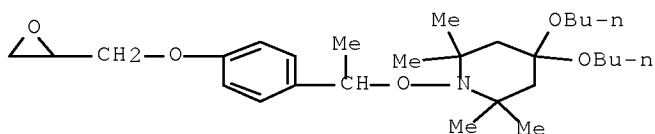
RN 437994-18-8 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-dipropoxy- (9CI) (CA INDEX NAME)



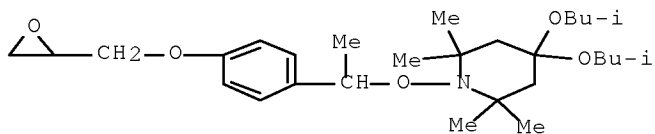
RN 437994-19-9 HCAPLUS

CN Piperidine, 4,4-dibutoxy-2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



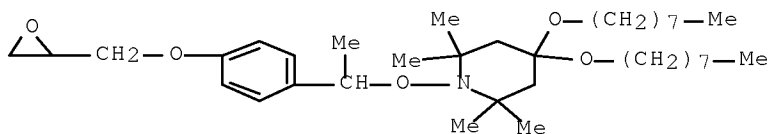
RN 437994-20-2 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-4,4-bis(2-methylpropoxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-21-3 HCAPLUS

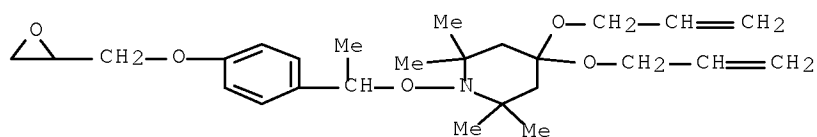
CN Piperidine, 2,2,6,6-tetramethyl-4,4-bis(octyloxy)-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-22-4 HCAPLUS

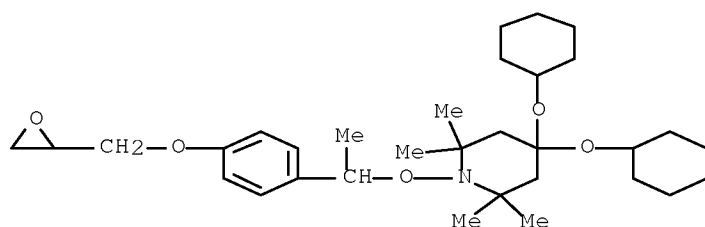
CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(2-propenyloxy)- (9CI) (CA INDEX NAME)

10/519,030



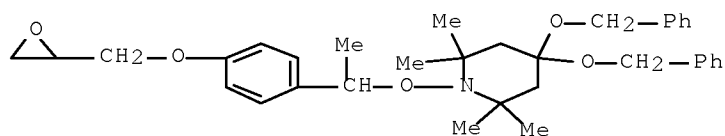
RN 437994-23-5 HCAPLUS

CN Piperidine, 4,4-bis(cyclohexyloxy)-2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



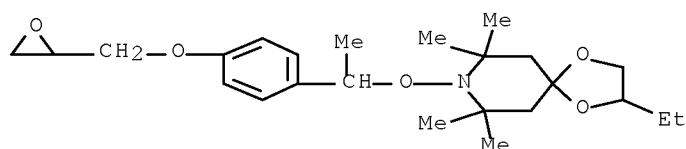
RN 437994-24-6 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-4,4-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)



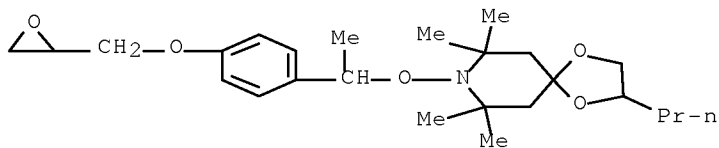
RN 437994-27-9 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-ethyl-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



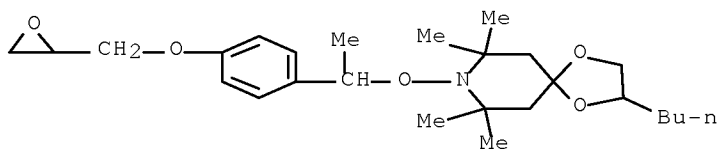
RN 437994-28-0 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-propyl- (9CI) (CA INDEX NAME)



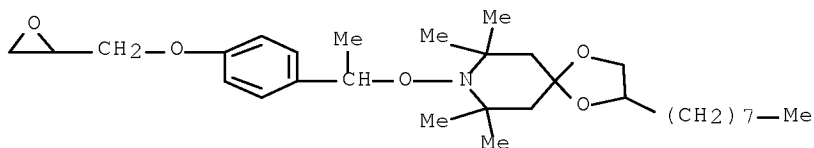
RN 437994-29-1 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-butyl-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



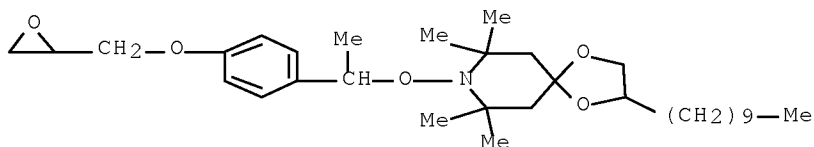
RN 437994-30-4 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-2-octyl-8-[1-[4-(oxiranylethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



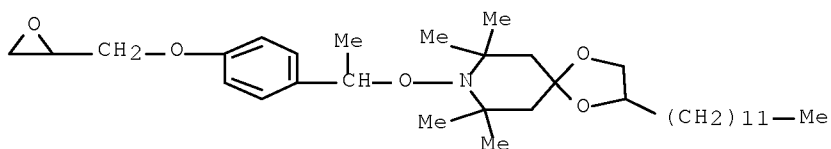
RN 437994-31-5 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-decyl-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



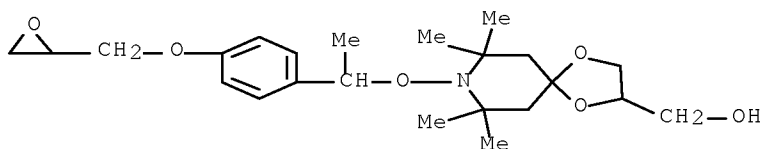
RN 437994-32-6 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-dodecyl-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



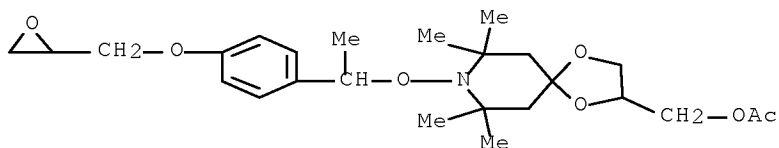
RN 437994-33-7 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



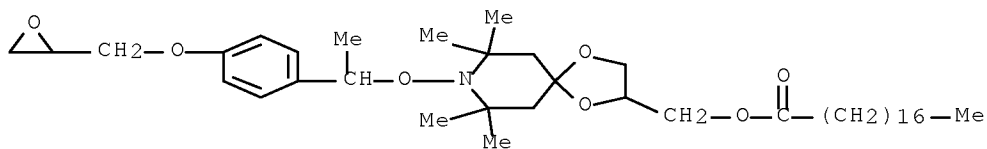
RN 437994-34-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)



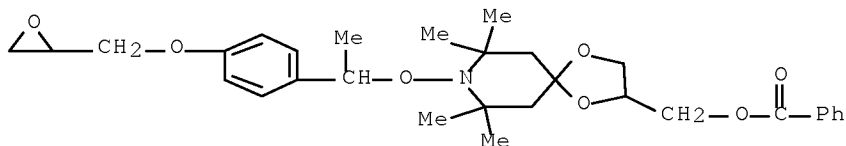
RN 437994-35-9 HCAPLUS

CN Octadecanoic acid, [7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl ester (9CI) (CA INDEX NAME)



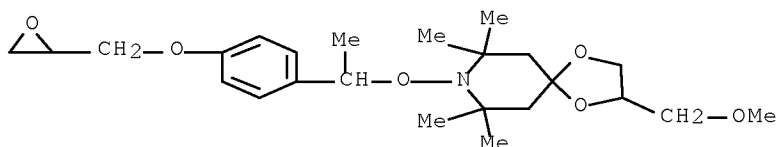
RN 437994-36-0 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2-methanol, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-, benzoate (ester) (9CI) (CA INDEX NAME)



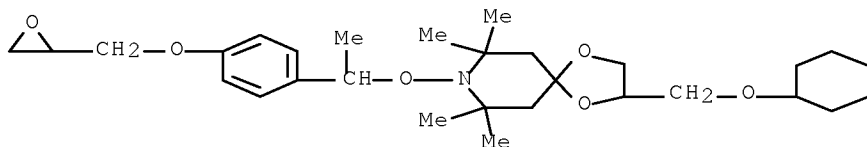
RN 437994-37-1 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-(methoxymethyl)-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



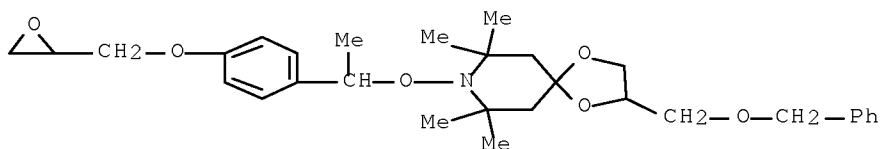
RN 437994-38-2 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2-[(cyclohexyloxy)methyl]-7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-39-3 HCAPLUS

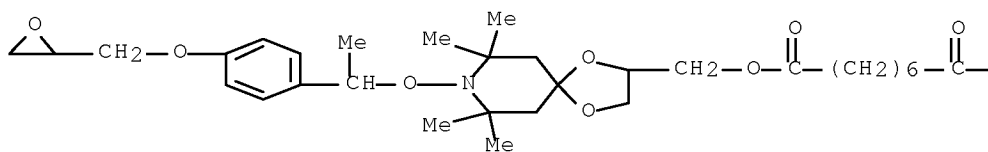
CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-2-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



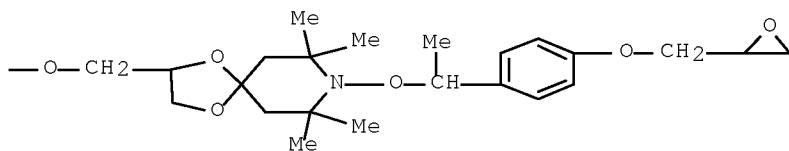
RN 437994-40-6 HCAPLUS

CN Octanedioic acid, bis[[7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



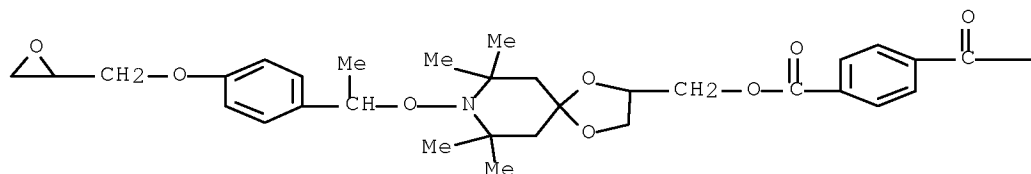
PAGE 1-B



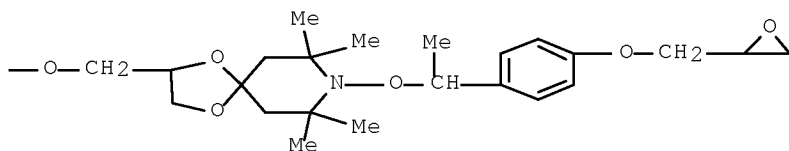
RN 437994-41-7 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis[[7,7,9,9-tetramethyl-8-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]-1,4-dioxo-8-azaspiro[4.5]dec-2-yl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



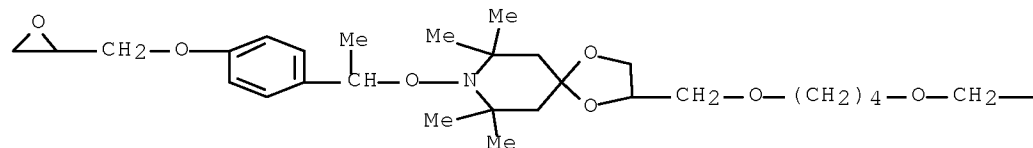
PAGE 1-B



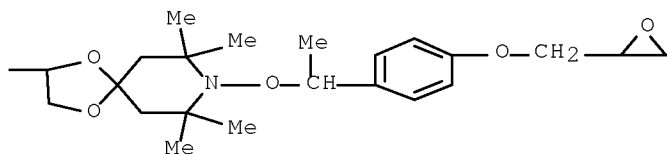
RN 437994-42-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,2'-[1,4-butanediylbis(oxymethylene)]bis[7,7,9,9-tetramethyl-8-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

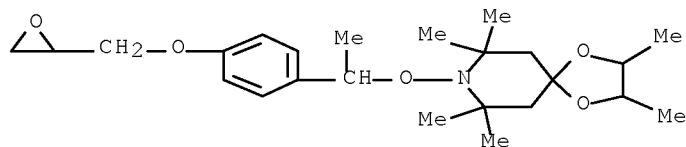


PAGE 1-B



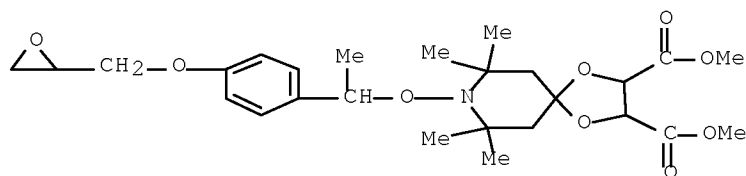
RN 437994-44-0 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,3,7,7,9,9-hexamethyl-8-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



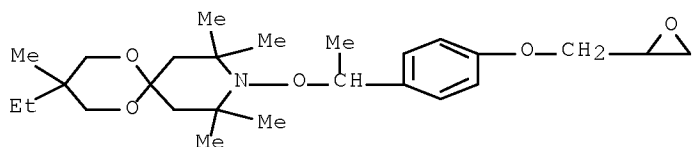
RN 437994-47-3 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane-2,3-dicarboxylic acid, 7,7,9,9-tetramethyl-8-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]-, dimethyl ester (9CI) (CA INDEX NAME)



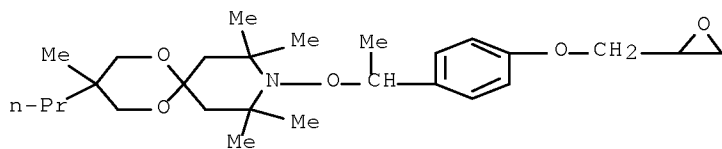
RN 437994-49-5 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-ethyl-3,8,8,10,10-pentamethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



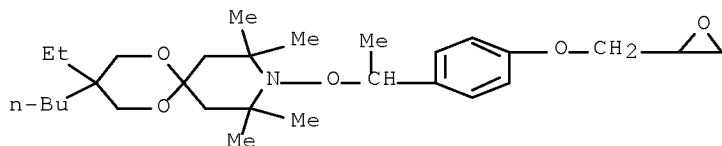
RN 437994-51-9 HCAPLUS

CN 1,5-Dioxaspiro[5.5]undecane, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]-3-propyl- (9CI) (CA INDEX NAME)



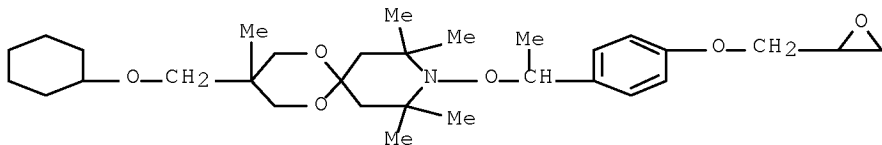
RN 437994-52-0 HCAPLUS

CN 1,5-Dioxaspiro[5.5]undecane, 3-butyl-3-ethyl-8,8,10,10-tetramethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



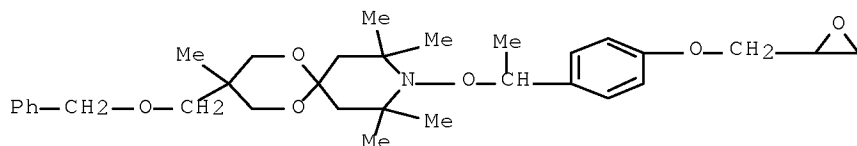
RN 437994-57-5 HCAPLUS

CN 1,5-Dioxaspiro[5.5]undecane, 3-[(cyclohexyloxy)methyl]-3,8,8,10,10-pentamethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



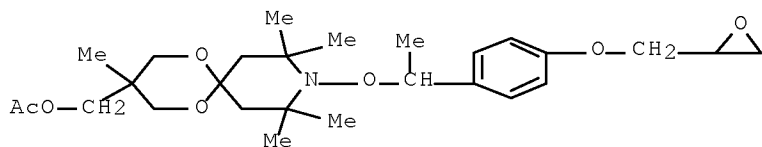
RN 437994-58-6 HCAPLUS

CN 1,5-Dioxaspiro[5.5]undecane, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiran-2-ylmethoxy)phenyl]ethoxy]-3-[(phenylmethoxy)methyl]- (9CI) (CA INDEX NAME)



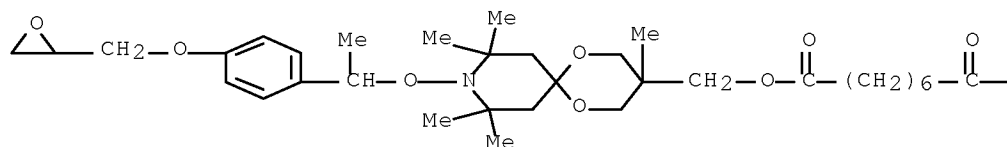
RN 437994-59-7 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-methanol, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-, acetate (ester) (9CI) (CA INDEX NAME)

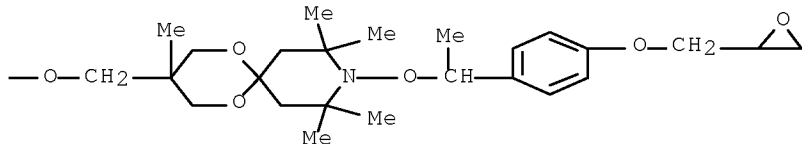


RN 437994-60-0 HCAPLUS

CN Octanedioic acid, bis[[3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-1,5-dioxaspiro[5.5]undec-3-yl]methyl] ester (9CI) (CA INDEX NAME)



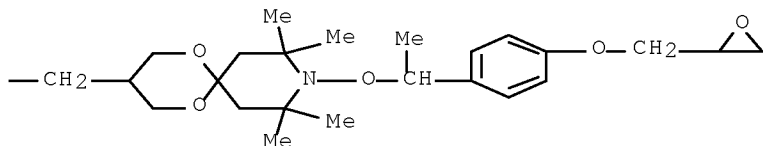
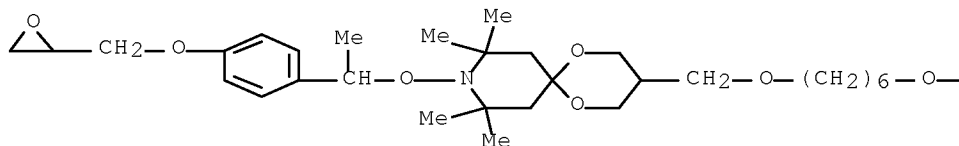
PAGE 1-A



PAGE 1-B

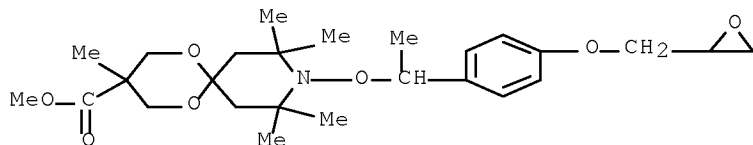
RN 437994-61-1 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane, 3,3'-[1,6-hexanediylbis(oxymethylene)]bis[8,8,10,10-tetramethyl-9-[1-[4-(oxiranylethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



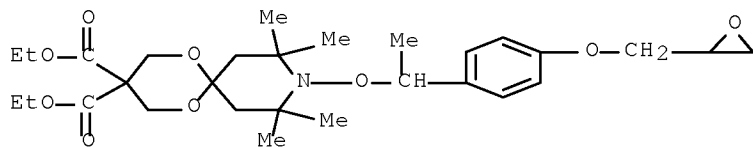
RN 437994-62-2 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3-carboxylic acid,
3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-,
methyl ester (9CI) (CA INDEX NAME)



RN 437994-63-3 HCAPLUS

CN 1,5-Dioxa-9-azaspiro[5.5]undecane-3,3-dicarboxylic acid,
8,8,10,10-tetramethyl-9-[1-[4-(oxiranylethoxy)phenyl]ethoxy]-,
diethyl ester (9CI) (CA INDEX NAME)



IT 434898-80-3P 437993-47-0P 437993-98-1P
437994-25-7P 437994-26-8P 437994-43-9P
437994-48-4P 437994-50-8P 437994-54-2P
437994-55-3P 437994-56-4P 437994-68-8P
437994-69-9P 437994-70-2P 437994-71-3P
437994-72-4P 437994-73-5P

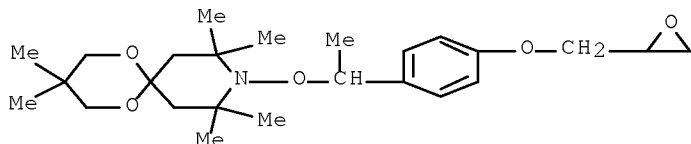
(N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl

10/519,030

or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

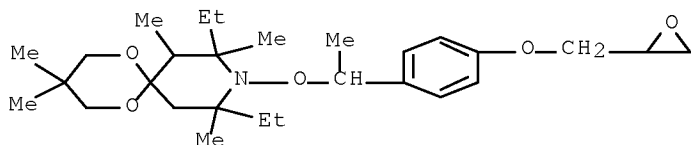
RN 434898-80-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3,8,8,10,10-hexamethyl-9-[1-[4-(2-oxiranylmethoxy)phenyl]ethoxy]- (CA INDEX NAME)



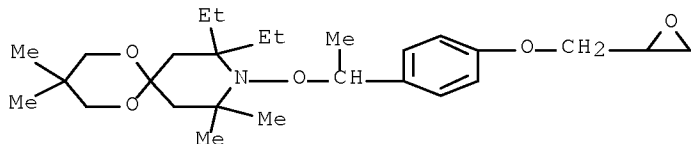
RN 437993-47-0 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,10-diethyl-3,3,7,8,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



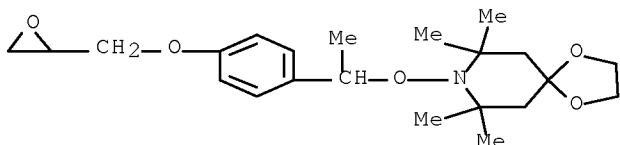
RN 437993-98-1 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3,3,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-25-7 HCAPLUS

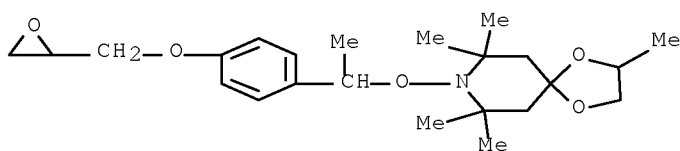
CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



10/519,030

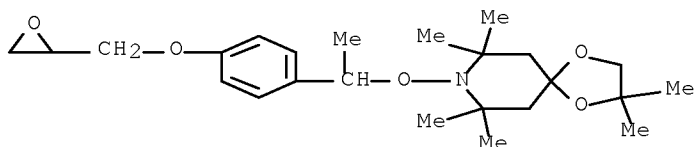
RN 437994-26-8 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,7,7,9,9-pentamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



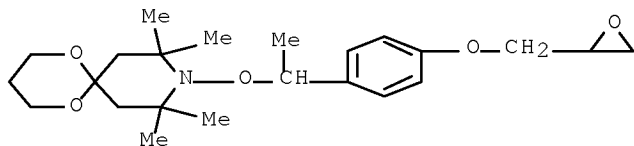
RN 437994-43-9 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 2,2,7,7,9,9-hexamethyl-8-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



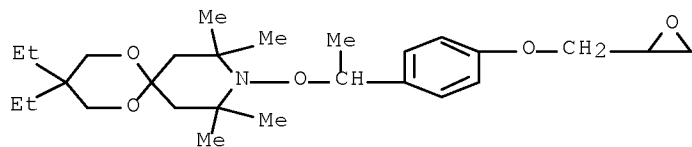
RN 437994-48-4 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-50-8 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,3-diethyl-8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

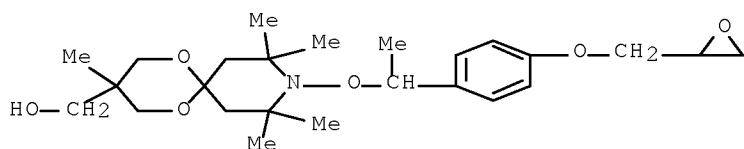


RN 437994-54-2 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 3,8,8,10,10-pentamethyl-

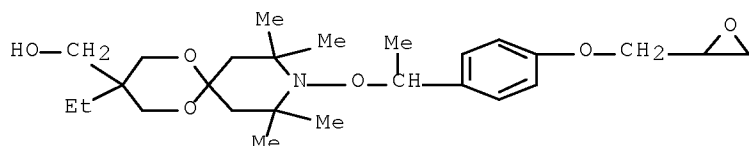
10/519,030

9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



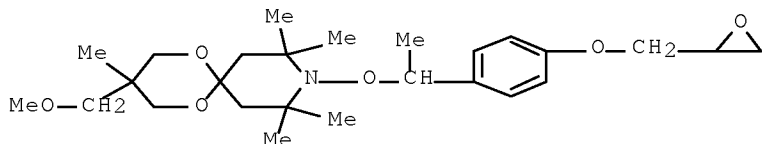
RN 437994-55-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane-3-methanol, 3-ethyl-8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



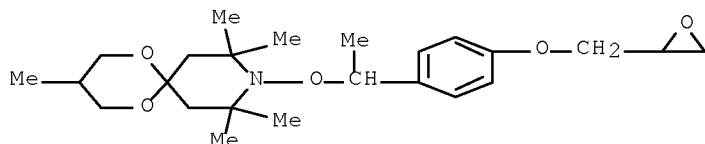
RN 437994-56-4 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-(methoxymethyl)-3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-68-8 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

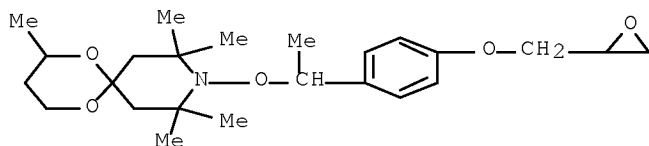


RN 437994-69-9 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 2,8,8,10,10-pentamethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)

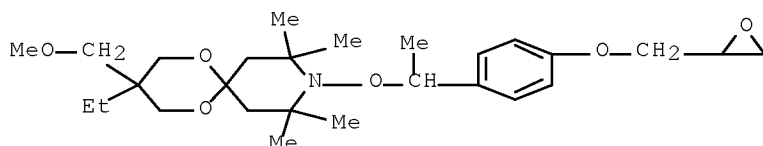
10/519,030

(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



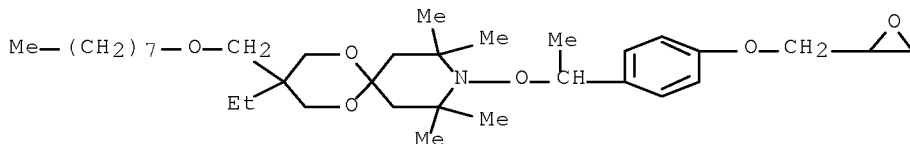
RN 437994-70-2 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-ethyl-3-(methoxymethyl)-8,8,10,10-tetramethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



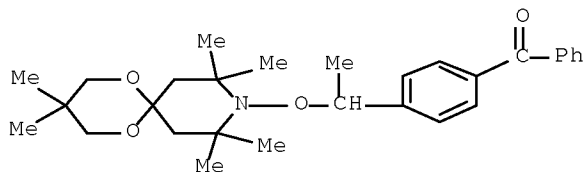
RN 437994-71-3 HCAPLUS

CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 3-ethyl-8,8,10,10-tetramethyl-3-[(octyloxy)methyl]-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



RN 437994-72-4 HCAPLUS

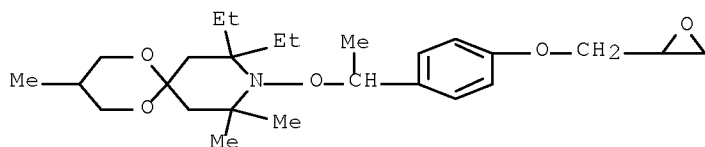
CN Methanone, [4-[1-[(3,3,8,8,10,10-hexamethyl-1,5-dioxo-9-azaspiro[5.5]undec-9-yl)oxy]ethyl]phenyl]phenyl- (CA INDEX NAME)



RN 437994-73-5 HCAPLUS

10/519,030

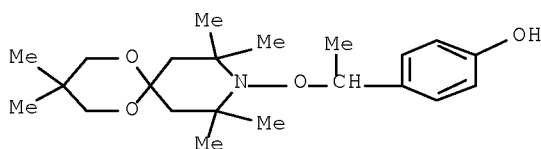
CN 1,5-Dioxo-9-azaspiro[5.5]undecane, 8,8-diethyl-3,10,10-trimethyl-9-[1-[4-(oxiranylmethoxy)phenyl]ethoxy]- (9CI) (CA INDEX NAME)



IT 437994-67-7P
(intermediate; N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

RN 437994-67-7 HCAPLUS

CN Phenol, 4-[1-[(3,3,8,8,10,10-hexamethyl-1,5-dioxo-9-azaspiro[5.5]undec-9-yl)oxy]ethyl]- (CA INDEX NAME)



IC ICM C07D211-94

ICS C08F002-00

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 28, 39, 67

IT 437993-14-1 437993-15-2 437993-16-3
437993-17-4 437993-18-5 437993-19-6
437993-20-9 437993-21-0 437993-22-1
437993-23-2 437993-24-3 437993-25-4
437993-26-5 437993-27-6 437993-28-7
437993-29-8 437993-30-1 437993-31-2
437993-32-3 437993-33-4 437993-34-5
437993-35-6 437993-36-7 437993-37-8
437993-38-9 437993-39-0 437993-40-3
437993-41-4 437993-42-5 437993-43-6 437993-44-7
437993-45-8 437993-46-9 437993-48-1
437993-49-2 437993-50-5 437993-51-6
437993-52-7 437993-53-8 437993-54-9
437993-55-0 437993-56-1 437993-57-2
437993-58-3 437993-59-4 437993-60-7
437993-61-8 437993-62-9 437993-63-0 437993-64-1
437993-65-2 437993-66-3 437993-67-4
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437993-71-0 437993-72-1 437993-73-2
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437993-89-0 437993-90-3 437993-91-4
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 437994-06-4 437994-07-5 437994-08-6
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 437994-42-8 437994-44-0 437994-45-1
 437994-47-3 437994-49-5 437994-51-9
 437994-52-0 437994-53-1 437994-57-5
 437994-58-6 437994-59-7 437994-60-0
 437994-61-1 437994-62-2 437994-63-3
 437994-64-4 437994-65-5

(N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

IT 434898-80-3P 437993-47-0P 437993-98-1P
 437994-25-7P 437994-26-8P 437994-43-9P
 437994-46-2P 437994-48-4P 437994-50-8P
 437994-54-2P 437994-55-3P 437994-56-4P
 437994-68-8P 437994-69-9P 437994-70-2P
 437994-71-3P 437994-72-4P 437994-73-5P

(N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

IT 437994-67-7P
 (intermediate; N-alkoxy-4,4-dioxy-polyalkyl-piperidine nitroxides containing glycidyl or alkylcarbonyl groups as functional initiators for controlled radical polymerization)

L41 ANSWER 26 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:354020 HCAPLUS Full-text

DOCUMENT NUMBER: 136:370147

TITLE: Soluble polymer supports for organic synthesis

INVENTOR(S): Janda, Kim D.; Gravert, Dennis J.

PATENT ASSIGNEE(S): The Scripps Research Institute, USA

SOURCE: U.S. Pat. Appl. Publ., 34 pp., Cont. of U.S. Ser. No. 161,604.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

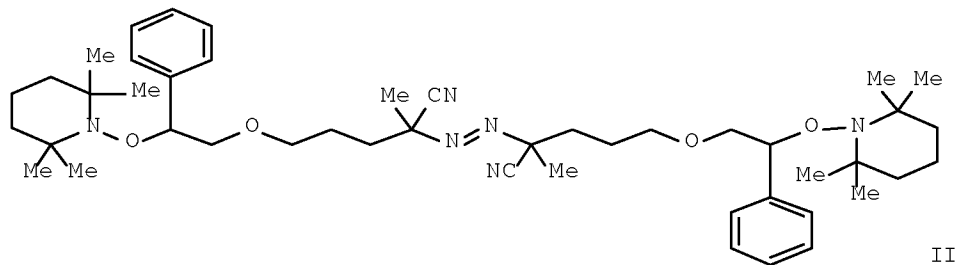
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20020055124	A1	20020509	US 2001-996402	20011119
			<--	
PRIORITY APPLN. INFO.:			US 1998-161604	A1 19980923
			<--	

ED Entered STN: 12 May 2002

GI



AB Polymer supports for liquid-phase organic synthesis (LPOS) are employed in a process for transferring a chemical intermediate between immiscible solvents. These compds. are produced with an expanded range of solubility range in a variety of solvent systems. A sequence of normal and "living" free radical polymers are employed to generate a library of block copolymers possessing either block or graft architecture with initiators having N:N and TEMPO groups tethered by ester or ether linkages for styrene, 4-tert-butylstyrene (I), 3,4-dimethoxystyrene, vinylpyrrolidinone, N-isopropylacrylamide, and 1-methacryloyloxy-2-phenyl-2-(2,2,6,6-tetramethyl-1-piperidinyloxy)ethane. A typical block copolymer was manufactured by polymerization of 7.75 mmol styrene 8 h at 70° in 1,2-dichlorobenzene in the presence of initiator II, and polymerization of 1.08 mmol I 12 h at 130° in the presence of 1.02 mg intermediate.

IT 213994-85-5P 213994-88-8P 423126-12-9P
(graft polymer precursor; soluble graft and block styrene
(derivative)-based polymer supports for organic synthesis)

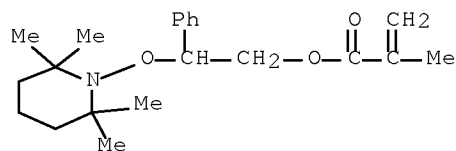
RN 213994-85-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)oxy]ethyl ester, polymer with 4-ethenyl-1,2-dimethoxybenzene (9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1

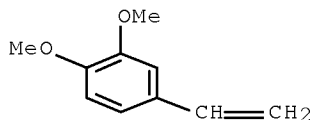
CMF C21 H31 N O3



CM 2

CRN 6380-23-0

CMF C10 H12 O2



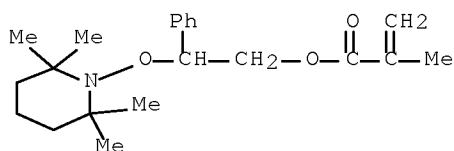
RN 213994-88-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1

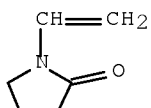
CMF C21 H31 N O3



CM 2

CRN 88-12-0

CMF C6 H9 N O



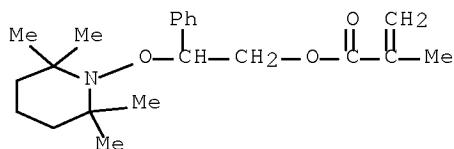
RN 423126-12-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1

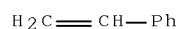
CMF C21 H31 N O3



CM 2

CRN 100-42-5

CMF C8 H8

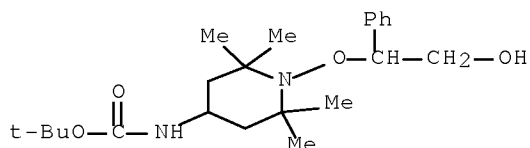


IT 213994-50-4P 423126-07-2P

(polymerization initiator precursor; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)

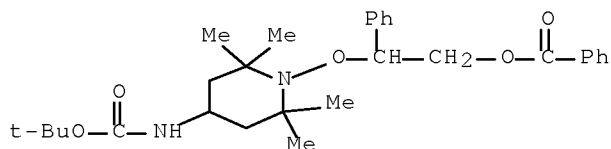
RN 213994-50-4 HCAPLUS

CN Carbamic acid, [1-(2-hydroxy-1-phenylethoxy)-2,2,6,6-tetramethyl-4-piperidinyloxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 423126-07-2 HCAPLUS

CN Carbamic acid, [1-[2-(benzoyloxy)-1-phenylethoxy]-2,2,6,6-tetramethyl-4-piperidinyloxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



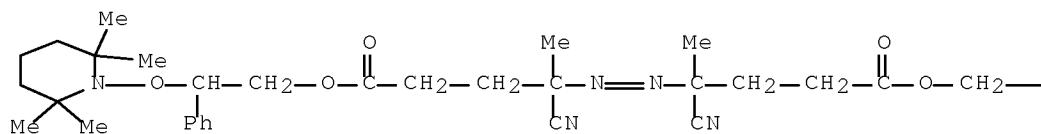
IT 188119-33-7P 203382-60-9P 213994-38-8P

(polymerization initiator; soluble graft and block styrene (derivative)-based polymer supports for organic synthesis)

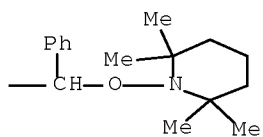
RN 188119-33-7 HCAPLUS

CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



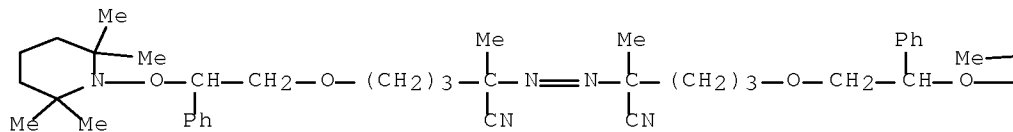
PAGE 1-B



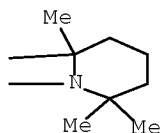
RN 203382-60-9 HCAPLUS

CN Pentanenitrile, 2,2'-azobis[2-methyl-5-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A

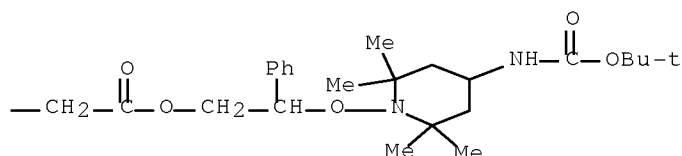
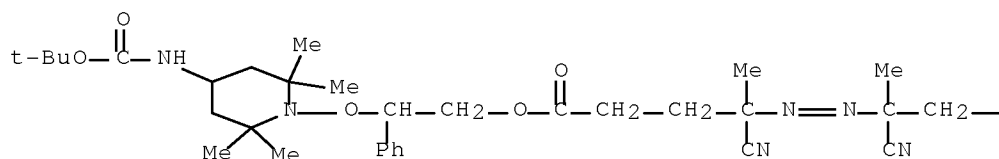


PAGE 1-B

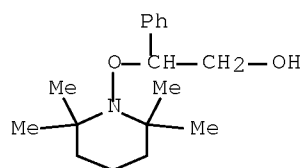


RN 213994-38-8 HCAPLUS

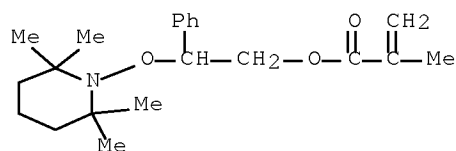
CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-[[4-[[[(1,1-dimethylethoxy)carbonyl]amino]-2,2,6,6-tetramethyl-1-piperidinyl]oxy]-2-phenylethyl] ester (9CI) (CA INDEX NAME)



IT 161776-41-6
 (reactive polymerization initiator precursor; soluble graft and
 block styrene (derivative)-based polymer supports for organic
 synthesis)
 RN 161776-41-6 HCAPLUS
 CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA
 INDEX NAME)



IT 213994-57-1P
 (reactive polymerization initiator; soluble graft and block styrene
 (derivative)-based polymer supports for organic synthesis)
 RN 213994-57-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-
 piperidinyl)oxy]ethyl ester (CA INDEX NAME)



IC ICM G01N033-53

10/519,030

ICS G01N033-543; C08F008-30; C08F008-44; C08F008-32
INCL 435007100
CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 23
IT 213994-85-5P 213994-88-8P 423126-12-9P
(graft polymer precursor; soluble graft and block styrene
(derivative)-based polymer supports for organic synthesis)
IT 213994-43-5P 213994-50-4P 423126-07-2P
(polymerization initiator precursor; soluble graft and block
styrene (derivative)-based polymer supports for organic
synthesis)
IT 188119-33-7P 203382-60-9P 213994-38-8P
(polymerization initiator; soluble graft and block styrene
(derivative)-based polymer supports for organic synthesis)
IT 161776-41-6
(reactive polymerization initiator precursor; soluble graft and
block styrene (derivative)-based polymer supports for organic
synthesis)
IT 213994-57-1P
(reactive polymerization initiator; soluble graft and block styrene
(derivative)-based polymer supports for organic synthesis)

L41 ANSWER 27 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:311344 HCAPLUS Full-text

DOCUMENT NUMBER: 137:79284

TITLE: Syntheses of functional alkoxyamines and
application to syntheses of well-defined star
polymers

AUTHOR(S): Miura, Yozo; Yoshida, Yuji

CORPORATE SOURCE: Department of Applied Chemistry, Graduate School
of Engineering, Osaka City University, Osaka,
558-8585, Japan

SOURCE: Macromolecular Chemistry and Physics (2002
) , 203(5/6), 879-888

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

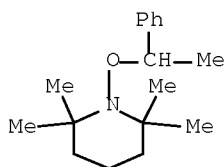
ED Entered STN: 25 Apr 2002

AB Three kinds of 2,2,6,6-tetramethylpiperidine-N-oxyl (TEMPO)-based
alkoxyamines, 1-(4-iodophenyl)-(3), 1-(4-ethynylphenyl)-(4), and 1-[4-(1, 3,
2-dioxaborinan-2-yl)phenyl]-1-(2,2,6,6-tetramethyl-1- piperidinyloxy)ethanes
(5) were prepared. The Pd-catalyzed cross-coupling reaction of 3 with 1,3,5-
triethynylbenzene or 1,3,5-tribromobenzene with 4 gave the corresponding
1,3,5-tris(alkoxyaminophenylethynyl)benzene 11, and the Pd-catalyzed cross-
coupling reaction of 5 with 1,3,5-tribromobenzene gave the corresponding 1,3,5-
tris(alkoxyaminophenyl)benzene 12. Bulk polymerization of styrene (St) at
120°C initiated with 11 and 12 were investigated. The first-order plots,
linear relationships between and conversion, and low Mw/Mns of the formed
poly(St) showed that the polymerization proceeded in the "living" fashion
leading to formation of well-defined three-arm star polymers with Mw/Mn of
1.20-1.40.

IT 154554-67-3
(polymerization initiator; syntheses of TEMPO-based functional
alkoxyamines and their application to syntheses of well-defined
star polystyrenes)

RN 154554-67-3 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



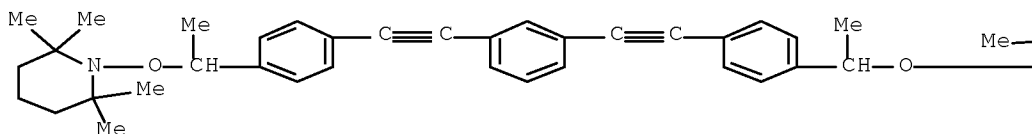
IT 439904-91-3P 439904-92-4P 439904-93-5P
439904-94-6P

(polymerization initiator; syntheses of TEMPO-based functional alkoxyamines and their application to syntheses of well-defined star polystyrenes)

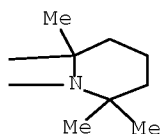
RN 439904-91-3 HCAPLUS

CN Piperidine, 1,1'-[1,3-phenylenebis(2,1-ethynediyl-4,1-phenyleneethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



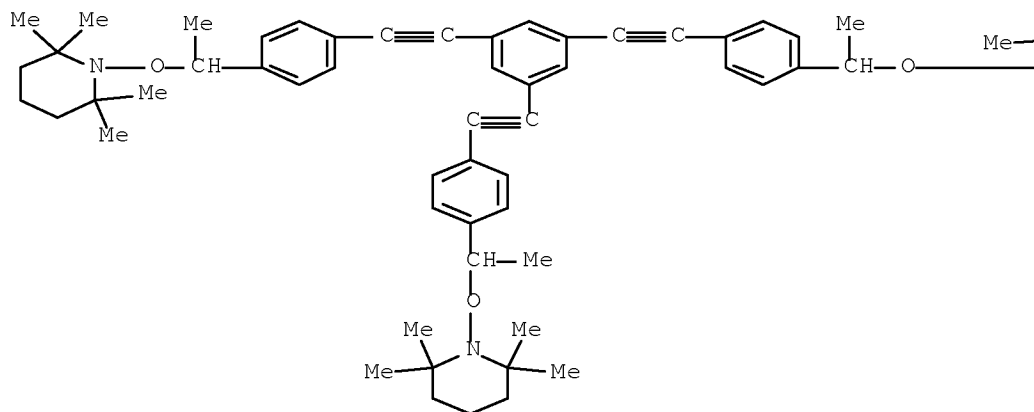
PAGE 1-B



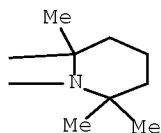
RN 439904-92-4 HCAPLUS

CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris(2,1-ethynediyl-4,1-phenyleneethylideneoxy)]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

PAGE 1-A



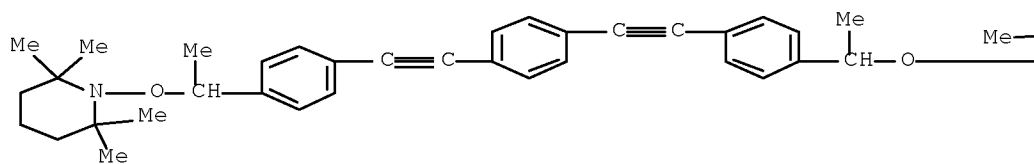
PAGE 1-B



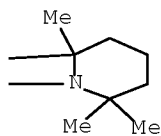
RN 439904-93-5 HCAPLUS

CN Piperidine, 1,1'-[1,4-phenylenebis(2,1-ethynediyl-4,1-phenyleneethylenedioxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

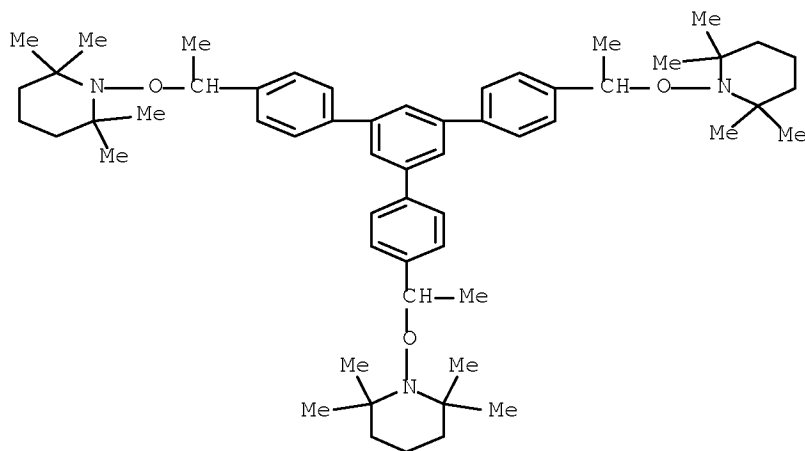
PAGE 1-A



PAGE 1-B



RN 439904-94-6 HCAPLUS
 CN Piperidine, 1,1'-[[5'-[4-[1-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl]phenyl][1,1':3',1''-terphenyl]-4,4''-diyl]bis(ethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 154554-67-3

(polymerization initiator; syntheses of TEMPO-based functional alkoxyamines and their application to syntheses of well-defined star polystyrenes)

IT 439904-91-3P 439904-92-4P 439904-93-5P

439904-94-6P

(polymerization initiator; syntheses of TEMPO-based functional alkoxyamines and their application to syntheses of well-defined star polystyrenes)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 28 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:289924 HCAPLUS Full-text

DOCUMENT NUMBER: 137:217300

TITLE: Preparation of diblock and triblock copolymers of styrene, 2,5-norbornadiene, ethylmethacrylate and PEG by nitroxide-controlled free radical polymerization

AUTHOR(S): Adeli, Mohsen; Entezami, Ali Akbar

CORPORATE SOURCE: Polymer Laboratory, Faculty of Chemistry, University of Tabriz, Tabriz, 51664, Iran

SOURCE: Iranian Polymer Journal (2001), 10(6), 393-402

CODEN: IPJOFF; ISSN: 1026-1265

PUBLISHER: Iran Polymer Institute

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 18 Apr 2002

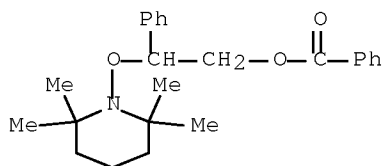
AB 2,5-Norbornadiene was polymerized in bulk at 125° in presence of a low molar mass of polystyrene-TEMPO as macroinitiator. The structure and polydispersity of the obtained diblock copolymer (PSt-PNB-TEMPO) were determined by IR, ¹H NMR spectroscopy and GPC measurement, resp., where TEMPO is 2,2,6,6-tetramethylpiperidiny-1-oxy and PNB is polynorbornadiene. The triblock copolymer of styrene-2,5-norbornadiene-ethylmethacrylate (PSt-PNB-PEMA) using a PSt-PNB-TEMPO as the macroinitiator in the presence of camphorsulfonic acid (CSA) was prepared. Also the triblock copolymer containing polyethylmethacrylate and poly(ethylene glycol) designated as PEMA-PEG-PEMA was synthesized by a novel method. The ¹H NMR and FTIR studies of triblock copolymers confirmed their structures and the absence of TEMPO end groups for PEMA.

IT 81913-53-3P

(preparation of block copolymers of styrene, 2,5-norbornadiene, Et methacrylate and PEG by nitroxide-controlled free radical polymerization)

RN 81913-53-3 HCAPLUS

CN Benzeneethanol, β-[(2,2,6,6-tetramethyl-1-piperidinyloxy)-, 1-benzoate (CA INDEX NAME)

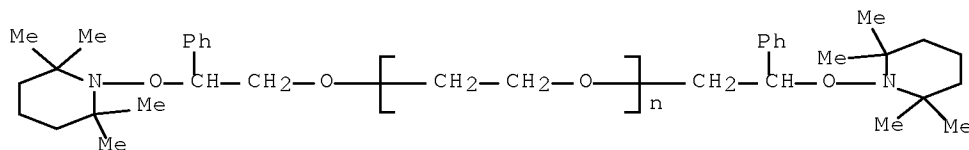


IT 454692-70-7P

(preparation of block copolymers of styrene, 2,5-norbornadiene, Et methacrylate and PEG by nitroxide-controlled free radical polymerization)

RN 454692-70-7 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl]-ω-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethoxy]- (9CI) (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)

IT 81913-53-3P

(preparation of block copolymers of styrene, 2,5-norbornadiene, Et methacrylate and PEG by nitroxide-controlled free radical polymerization)

IT 27252-69-3P 386756-36-1P, Ethylene oxide-ethyl methacrylate block polymer 454692-68-3DP, 2,5-Norbornadiene-styrene block copolymer, TEMPO-terminated 454692-70-7P

(preparation of block copolymers of styrene, 2,5-norbornadiene, Et

10/519,030

methacrylate and PEG by nitroxide-controlled free radical
polymerization)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 29 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:629050 HCAPLUS Full-text
DOCUMENT NUMBER: 135:358194
TITLE: Synthesis of three- and six-arms polystyrene via
living/controlled free radical polymerization
AUTHOR(S): Chessa, G.; Scrivanti, A.; Matteoli, U.;
Castelvetto, V.
CORPORATE SOURCE: Dipartimento di Chimica, Universita di Venezia,
Venice, 30123, Italy
SOURCE: Polymer (2001), 42(23), 9347-9353
CODEN: POLMAG; ISSN: 0032-3861
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

ED Entered STN: 30 Aug 2001

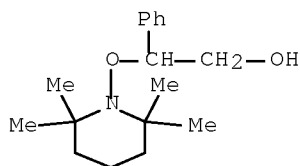
AB Three new polyfunctional TEMPO-based initiators have been synthesized by
reaction of some mesitylene cores and 2,2,6,6-tetramethyl-1-(2-hydroxy-1-
phenylethoxy)-piperidine. They have been employed in the living/controlled
radical polymerization of styrene to provide three- and six-arm star
macromols. These polymers have mol. weight ranging from 6000 to 11000 g/mol
and narrow mol. weight distributions (PD<1.3). Cleavage of the link between
the core and the arms was achieved, using a two-step sequence implying the
preliminary removal of the TEMPO chain ends followed by catalytic
hydrogenolysis. The dimensions of the individual arms so obtained closely
match the values expected from the styrene/initiator molar ratio in the
polymerization feed.

IT 161776-41-6

(in catalyst preparation; synthesis of three- and six-arm polystyrene
via living/controlled free radical polymerization)

RN 161776-41-6 HCAPLUS

CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA
INDEX NAME)

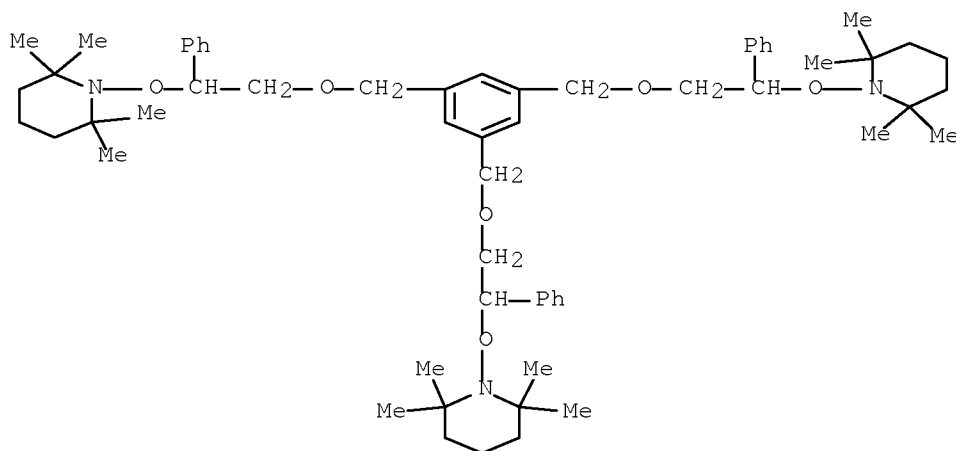


IT 372522-45-7P 372522-46-8P 372522-47-9P

(synthesis of three- and six-arm polystyrene via living/controlled
free radical polymerization)

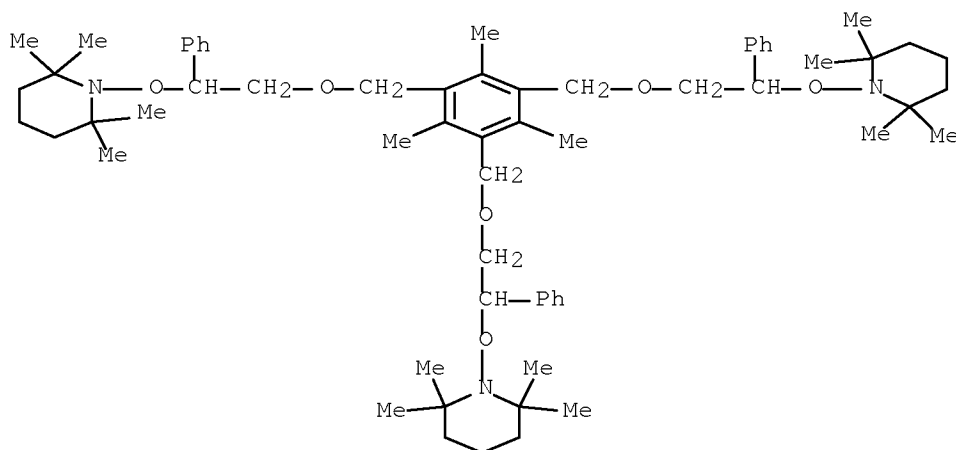
RN 372522-45-7 HCAPLUS

CN Piperidine, 1,1',1''-[1,3,5-benzenetriyltris[methyleneoxy(1-phenyl-2,1-
ethanediyl)oxy]]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 372522-46-8 HCAPLUS

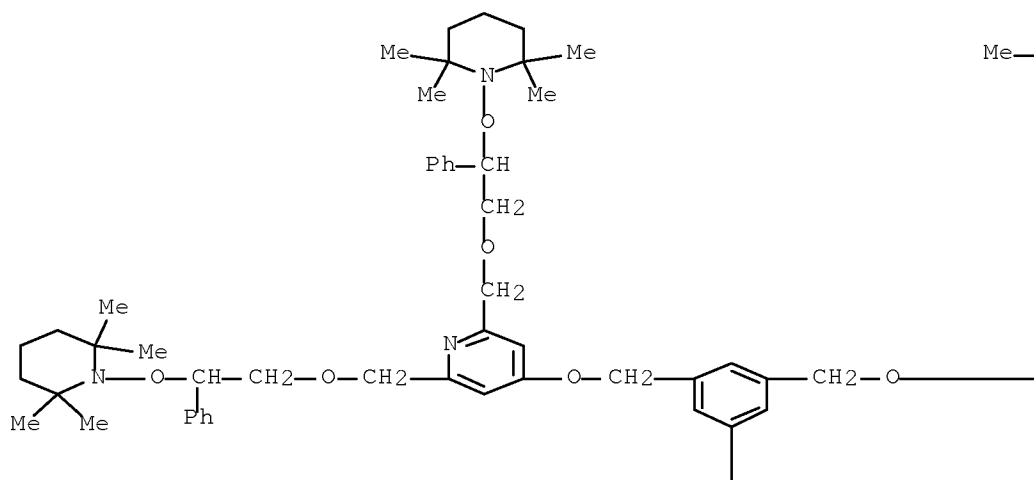
CN Piperidine, 1,1',1''-[(2,4,6-trimethyl-1,3,5-benzenetriyl)tris[methyleneoxy(1-phenyl-2,1-ethanediyl)oxy]]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



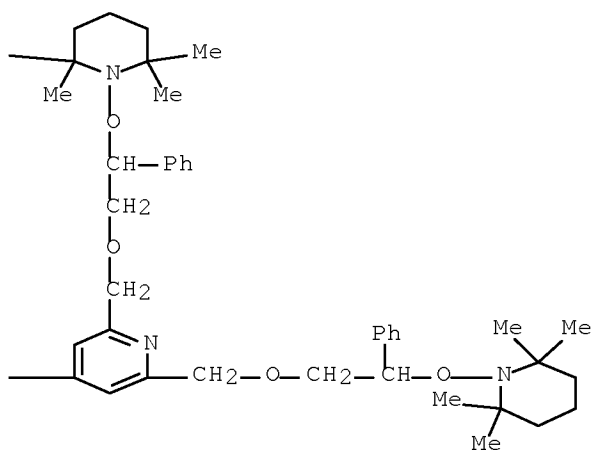
RN 372522-47-9 HCAPLUS

CN Pyridine, 4,4',4''-[1,3,5-benzenetriyltris(methyleneoxy)]tris[2,6-bis[[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]methyl]- (9CI) (CA INDEX NAME)

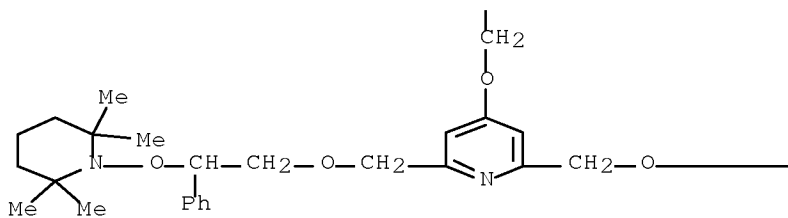
PAGE 1-A

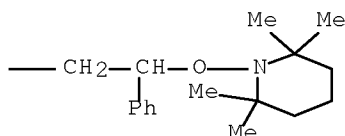


PAGE 1-B



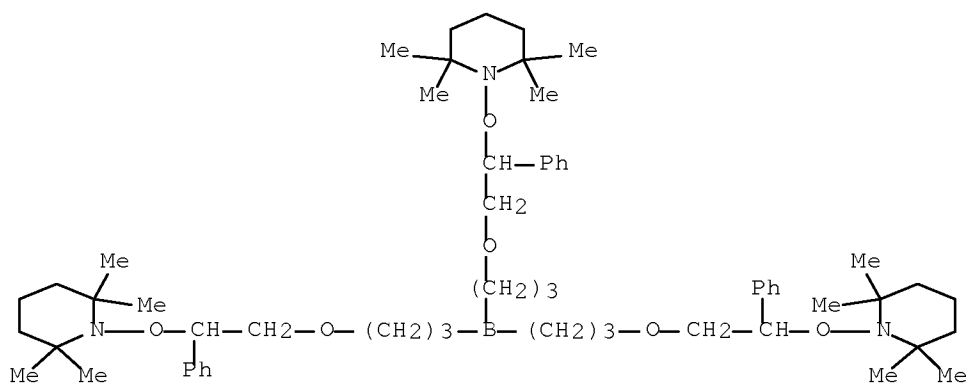
PAGE 2-A



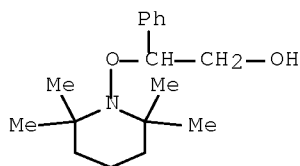


CC 35-3 (Chemistry of Synthetic High Polymers)
 IT 18226-42-1, 1,3,5-Tris(bromomethyl)benzene 161776-41-6
 (in catalyst preparation; synthesis of three- and six-arm polystyrene
 via living/controlled free radical polymerization)
 IT 372522-45-7P 372522-46-8P 372522-47-9P
 (synthesis of three- and six-arm polystyrene via living/controlled
 free radical polymerization)
 REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

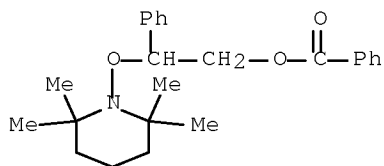
L41 ANSWER 30 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2001:208762 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:5896
 TITLE: Synthesis of poly(methylene-b-styrene) by
 sequential living polymerization
 AUTHOR(S): Zhou, Xian-Zhi; Shea, Kenneth J.
 CORPORATE SOURCE: Department of Chemistry, University of California
 Irvine, Irvine, CA, 92697-2025, USA
 SOURCE: Macromolecules (2001), 34(9), 3111-3114
 CODEN: MAMOBX; ISSN: 0024-9297
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 23 Mar 2001
 AB Poly homologation reaction for the synthesis of poly(methylene-b- styrene)
 block copolymers was considered. A series of block copolymers were prepared
 by the hydroboration-poly homologation. Control over the chain length of the
 polymethylene block was achieved by adjusting the initial molar ratio of ylide
 to organoborane.
 IT 341968-37-4P
 (borane; synthesis of poly(methylene-b-styrene) by sequential
 living polymerization)
 RN 341968-37-4 HCAPLUS
 CN Piperidine, 1,1',1''-[borylidynetris[3,1-propanediyl]oxy(1-phenyl-2,1-
 ethanediyl)oxy]]tris[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



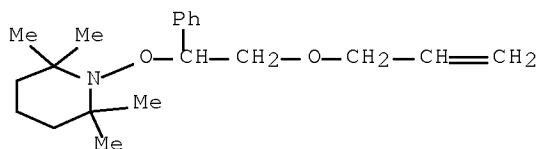
IT 161776-41-6P
 (initiator; synthesis of poly(methylene-b-styrene) by sequential living polymerization)
 RN 161776-41-6 HCAPLUS
 CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



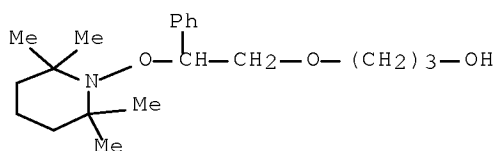
IT 81913-53-3P 341968-36-3P
 (synthesis of poly(methylene-b-styrene) by sequential living polymerization)
 RN 81913-53-3 HCAPLUS
 CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]-, 1-benzoate (CA INDEX NAME)



RN 341968-36-3 HCAPLUS
 CN Piperidine, 2,2,6,6-tetramethyl-1-[1-phenyl-2-(2-propenyloxy)ethoxy]- (9CI) (CA INDEX NAME)



IT 341968-38-5P
 (synthesis of poly(methylene-b-styrene) by sequential living polymerization)
 RN 341968-38-5 HCAPLUS
 CN 1-Propanol, 3-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]- (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 341968-37-4P
 (borane; synthesis of poly(methylene-b-styrene) by sequential living polymerization)
 IT 161776-41-6P
 (initiator; synthesis of poly(methylene-b-styrene) by sequential living polymerization)
 IT 106-95-6DP, Allyl bromide, reaction product with OH-terminated polystyrene 9003-53-6DP, Styrene homopolymer, consecutively hydroxy-, allyl-terminated, hydroborated 13292-87-0DP, reaction product with allyloxy-terminated polystyrene 81913-53-3P 341968-36-3P
 (synthesis of poly(methylene-b-styrene) by sequential living polymerization)
 IT 341968-38-5P
 (synthesis of poly(methylene-b-styrene) by sequential living polymerization)
 REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
 L41 ANSWER 31 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2001:31452 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:101275
 TITLE: Preparation of mono and multifunctional alkoxyamines for forming nitroxyl radical initiators and regulators useful in the preparation of polymers with narrow polydispersity
 INVENTOR(S): Kramer, Andreas; Nesvadba, Peter; Zink, Marie-Odile; Wunderlich, Wiebke
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
 SOURCE: PCT Int. Appl., 74 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001002345	A2	20010111	WO 2000-EP5899	20000626
WO 2001002345	A3	20010719		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2375806	A1	20010111	CA 2000-2375806	20000626
EP 1189875	A2	20020327	EP 2000-951302	20000626
EP 1189875	B1	20040804		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003503474	T	20030128	JP 2001-507787	20000626
AT 272610	T	20040815	AT 2000-951302	20000626
US 6875831	B1	20050405	US 2001-19618	20011220
PRIORITY APPLN. INFO.:			EP 1999-810567	A 19990702
			WO 2000-EP5899	W 20000626

OTHER SOURCE(S): MARPAT 134:101275

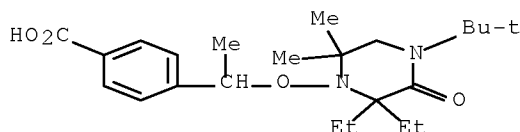
ED Entered STN: 12 Jan 2001

AB The title alkoxyamines especially useful for the living polymerization of unsatd. monomers or/and oligomers giving polymers with good conversion are compds. bearing groups which can liberate stable free nitroxyl radicals of specific structures.

IT 319458-08-7P
 (initiator/intermediate for multifunctional initiator; preparation of mono and multifunctional alkoxyamines as initiators for free radical polymerization with narrow polydispersity)

RN 319458-08-7 HCAPLUS

CN Benzoic acid, 4-[1-[[4-(1,1-dimethylethyl)-2,2-diethyl-6,6-dimethyl-3-oxo-1-piperazinyl]oxy]ethyl]- (CA INDEX NAME)



IC ICM C07C239-20

ICS C07D211-94; C08F004-00

CC 35-3 (Chemistry of Synthetic High Polymers)

IT 243972-13-6P	243972-14-7P	243972-16-9P	264280-52-6P
319457-95-9P	319457-96-0P	319457-97-1P	319458-04-3P
319458-08-7P	319458-11-2P	319458-12-3P	319458-15-6P

10/519,030

319458-16-7P	319458-17-8P	319458-25-8P	319458-26-9P
319458-28-1P	319458-30-5P	319458-31-6P	319458-33-8P
319458-35-0P	319458-36-1P	319458-38-3P	319458-39-4P
319458-41-8P	319458-42-9P	319458-44-1P	319458-45-2P
319458-47-4P	319458-48-5P	319458-50-9P	319458-52-1P
319458-53-2P			

(initiator/intermediate for multifunctional initiator; preparation of mono and multifunctional alkoxyamines as initiators for free radical polymerization with narrow polydispersity)

L41 ANSWER 32 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:639540 HCAPLUS Full-text

DOCUMENT NUMBER: 134:5175

TITLE: Simultaneous atom transfer and nitroxide mediated controlled free radical polymerization of styrene

AUTHOR(S): Korn, Michael R.; Gagne, Michel R.

CORPORATE SOURCE: Dep. Chem., Southwest Texas State University, San Marcos, TX, 78666, USA

SOURCE: Chemical Communications (Cambridge) (2000), (18), 1711-1712

CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 14 Sep 2000

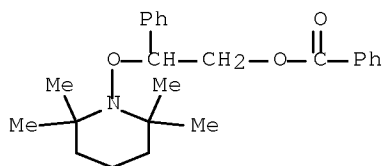
AB Equimolar mixts. of nitroxide-mediated radical polymerization and atom-transfer radical polymerization initiators lead to polystyrene that is unimodal by GPC; the mechanism of action most consistent with the data suggests that under the reaction conditions, TEMPO and Cl end groups scramble rapidly relative to the propagation rate, and result in a single type of polymer chain.

IT 81913-53-3, 2-Phenyl-2-(2,2,6,6-tetramethylpiperidin-1-yloxy)ethyl benzoate 308832-98-6

(in simultaneous atom transfer and nitroxide mediated controlled radical polymerization of styrene)

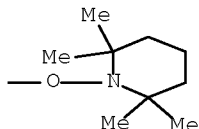
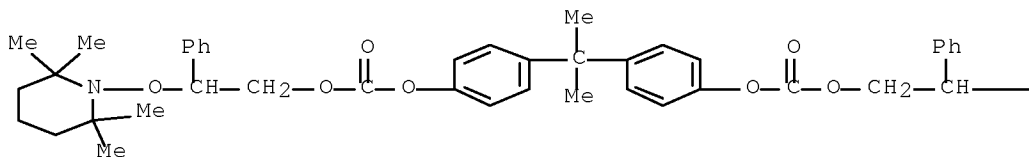
RN 81913-53-3 HCAPLUS

CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyloxy)-, 1-benzoate (CA INDEX NAME)



RN 308832-98-6 HCAPLUS

CN Carbonic acid, (1-methylethylidene)di-4,1-phenylene bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl] ester (9CI) (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 100-44-7, Benzyl chloride, uses 81913-53-3,
2-Phenyl-2-(2,2,6,6-tetramethylpiperidin-1-yloxy)ethyl benzoate
243844-72-6, 4-(1-Pyrenyl)butyl 3-(chloromethyl)benzoate
308832-98-6

(in simultaneous atom transfer and nitroxide mediated controlled
radical polymerization of styrene)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 33 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:559144 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 132:208171

TITLE: Synthesis of narrow-polydispersity
3-star-polystyrene via nitroxide-mediated radical
polymerization

AUTHOR(S): Zhou, Deliang; Yang, Nan-Loh

CORPORATE SOURCE: College of Staten Island, The City University of
New York, Staten Island, NY, 10314, USA

SOURCE: Polymer Preprints (American Chemical Society,
Division of Polymer Chemistry) (1999),
40(2), 938-939

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer
Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 02 Sep 1999

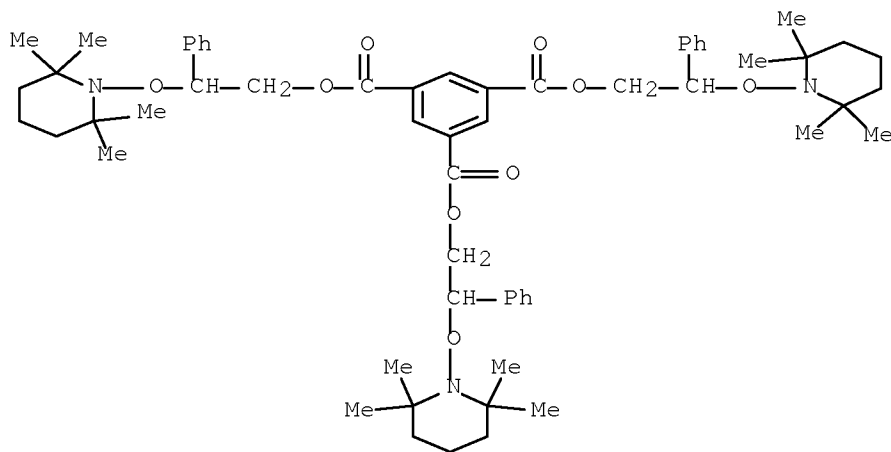
AB A trifunctional nitroxide radical polymerization initiator, tris[2-phenyl-2-
[(2,2,6,6-tetramethylpiperidino)oxy]ethyl] trimesate, was used to initiate
living radical polymerization of styrene to give narrow-polydispersity 3-star-
polystyrene with uniform branch length. The architecture of the polymers was
verified by hydrolysis and GPC anal.

IT 166983-62-6, Tris[2-phenyl-2-[(2,2,6,6-
tetramethylpiperidino)oxy]ethyl] trimesate
(initiator for living radical polymerization of styrene)

RN 166983-62-6 HCAPLUS

10/519,030

CN 1,3,5-Benzenetricarboxylic acid, tris[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 166983-62-6, Tris[2-phenyl-2-[(2,2,6,6-tetramethylpiperidino)oxy]ethyl] trimesate
(initiator for living radical polymerization of styrene)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 34 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:558851 HCAPLUS Full-text

DOCUMENT NUMBER: 132:152244

TITLE: Synthesis and properties of polymeric networks
prepared by "living" free radical polymerization
and end-linking processes

AUTHOR(S): Chaumont, Philippe; Asgarzadeh, Firouz;
Ourdouillie, Pascal; Beyou, Emmanuel; Mechin,
Francoise; Dumon, Michel

CORPORATE SOURCE: Unite Mixte de Recherches "Ingenierie des
Materiaux Macromoleculaires", Universite,
Villeurbanne, 69622, Fr.

SOURCE: Polymer Preprints (American Chemical Society,
Division of Polymer Chemistry) (1999),
40(2), 366-367

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer
Chemistry

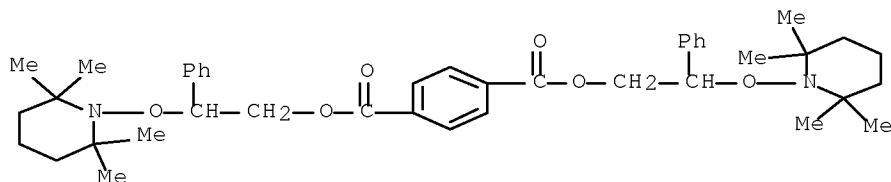
DOCUMENT TYPE: Journal

LANGUAGE: English

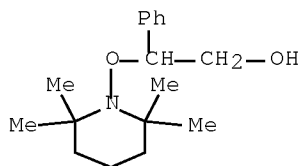
ED Entered STN: 02 Sep 1999

AB Polymer networks were synthesized by "living" free radical polymerization,
i.e. the free radical synthesis of difunctional precursors, followed by the
crosslinking of these precursors. Three types of controlled polymerization
were studied to prepare the precursors and the networks: (a) reversible
termination with nitroxide type control agents, (b) atom transfer radical
polymerization, and (c) radical addition-fragmentation transfer. The
structure and the swelling properties of the gels formed were studied.

IT 257955-86-5P
 (free radical control agent; for living free radical polymerization by reversible termination with nitroxide radicals)
 RN 257955-86-5 HCAPLUS
 CN 1,4-Benzenedicarboxylic acid, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



IT 161776-41-6
 (reactant; in preparation of free-radical control agent for living free radical polymerization by reversible termination with nitroxide radicals)
 RN 161776-41-6 HCAPLUS
 CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 257955-86-5P
 (free radical control agent; for living free radical polymerization by reversible termination with nitroxide radicals)
 IT 161776-41-6
 (reactant; in preparation of free-radical control agent for living free radical polymerization by reversible termination with nitroxide radicals)
 REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 35 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:279746 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 130:325501
 TITLE: Procedure for manufacture of block copolymers with controlled architecture via functional radical initiators and living radical polymerization, and initiator compositions, and corresponding copolymers
 INVENTOR(S): Bertin, Denis; Destarac, Mathias; Boutevin, Bernard

10/519,030

PATENT ASSIGNEE(S): Elf Atochem S.A., Fr.
 SOURCE: Eur. Pat. Appl., 34 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 911350	A1	19990428	EP 1998-402624	19981022
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2770219	A1	19990430	FR 1997-13383	19971024
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EP 1277771	A2	20030122	EP 2002-78512	19981022
<--				
R: AT, BE, DE, ES, FR, GB, IT, NL, SE, FI				
EP 1288236	A2	20030305	EP 2002-78511	19981022
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R: AT, BE, DE, ES, FR, GB, IT, NL, SE, FI				
PRIORITY APPLN. INFO.:			FR 1997-13383	A 19971024
			<--	
			EP 1998-402624	A3 19981022
			<--	

OTHER SOURCE(S): MARPAT 130:325501

ED Entered STN: 06 May 1999

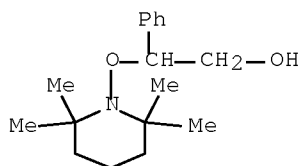
AB The first step in the procedure is thermally induced radical polymerization of at least one monomer M1 = methacrylic monomer and an initiator X-A-Y, where X and Y = monovalent living radical groups and A = divalent linking group capable of radical polymerization and radical-reactive groups, e.g., diazo -N=N-, peroxide -O-O-, to obtain a living polymer X-D (or Y-E)PM1-T where D = is a free radical moiety and T = terminal group. The initiator is obtained by reaction of 4,4'-Azobis[4- cyanovaleric acid] and end-functionalized alcs. or by reaction of H2O2 and an acid chloride containing groups X or Y. In the second step, living radical polymerization of the polymer and at least one other monomer, M2, is carried out, either by photochem. activation or by chain transfer control, to obtain a multifunctional macroinitiator that can be used in yet another polymerization step with at least one monomer M3; M2 and M3 are selected from vinyl, allyl, vinylidene, diene, or olefinic monomers. The second step is carried out in presence of transition metal complex catalysts, preferably CuZ'/L where Z = halogen, hexafluorophosphate, acetate and L = α -diimine ligand. Thus, a triblock copolymer, PS-PABu-PS was obtained; the initiator was prepared from 4,4'-Azobis[4-cyanovaleric acid] and trichloroethanol and used in radical polymerization of Bu acrylate at 130° to obtain the living poly(Bu acrylate) of average mol. weight 8700 g/mol and degree of polymerization of 64. The living polymer was then mixed with styrene and CuCl and bipyridine as radical polymerization catalyst system; the triblock copolymer was isolated from the reaction medium and has average mol. weight of 92,600 g/mol, of which 8700 g/mol correspond to the poly(Bu acrylate) sequence and 45,000 to the polystyrene sequences.

IT 161776-41-6, 2-Phenyl-2-[(2,2,6,6-tetramethylpiperidino)oxy]ethanol

(functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)

RN 161776-41-6 HCAPLUS

CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)

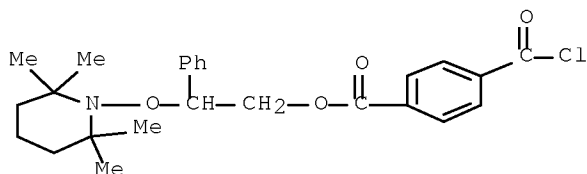


IT 223668-07-3P

(intermediate; functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)

RN 223668-07-3 HCAPLUS

CN Benzoic acid, 4-(chlorocarbonyl)-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester (CA INDEX NAME)

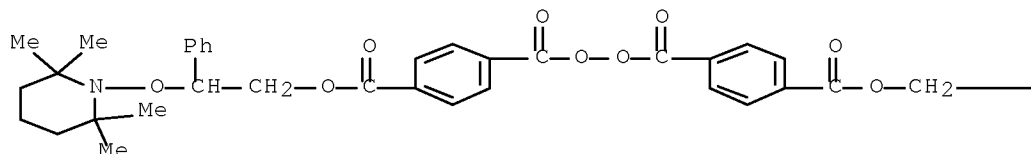


IT 223668-08-4P

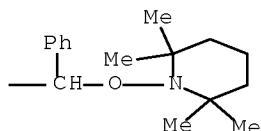
(peroxide initiator; functional radical initiators in sequential radical and living radical polymerization for manufacture of block copolymers with controlled architecture)

RN 223668-08-4 HCAPLUS

CN Benzoic acid, 4,4'-(dioxycarbonyl)bis-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



PAGE 1-A



PAGE 1-B

IC ICM C08F293-00
ICS C07C255-65
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 100-20-9, 1,4-Benzenedicarbonyl dichloride 115-20-8,
Trichloroethanol 2638-94-0, 4,4'-Azobis[4-cyanovaleric acid]
7722-84-1, Hydrogen peroxide (H2O2), reactions 30887-99-1
161776-41-6, 2-Phenyl-2-[(2,2,6,6-tetramethylpiperidino)oxy]ethanol
(functional radical initiators in sequential radical and living
radical polymerization for manufacture of block copolymers with
controlled architecture)
IT 223668-07-3P
(intermediate; functional radical initiators in sequential radical
and living radical polymerization for manufacture of block copolymers
with controlled architecture)
IT 223668-08-4P
(peroxide initiator; functional radical initiators in sequential
radical and living radical polymerization for manufacture of block
copolymers with controlled architecture)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 36 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:87261 HCAPLUS Full-text

DOCUMENT NUMBER: 130:237921

TITLE: Direct Synthesis of Dispersed Nanocomposites by in
Situ Living Free Radical Polymerization Using a
Silicate-Anchored Initiator

AUTHOR(S): Weimer, Marc W.; Chen, Hua; Giannelis, Emmanuel
P.; Sogah, Dotsevi Y.

CORPORATE SOURCE: Department of Chemistry and Chemical Biology Baker
Laboratory Department of Materials Science and
Engineering, Cornell University, Ithaca, NY,
14853, USA

SOURCE: Journal of the American Chemical Society (1999),
121(7), 1615-1616
CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

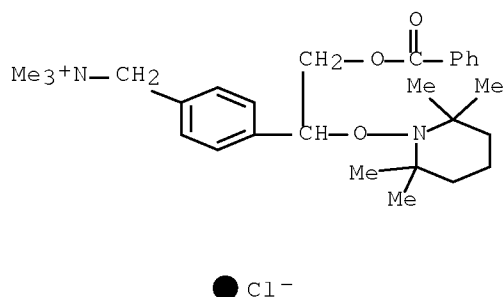
DOCUMENT TYPE: Journal

LANGUAGE: English

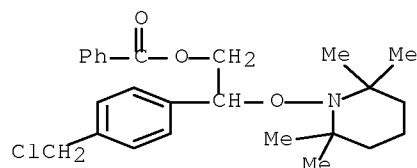
ED Entered STN: 11 Feb 1999

AB Anchoring a living free radical polymerization (LFRP) initiator inside the
galleries of layered silicate hosts followed by intercalation and
polymerization of styrene gives directly dispersed polystyrene(PS)-silicate
nanocomposite. The initiator was prepared and ion-exchanged onto a com.
montmorillonite layered silicate to obtain the intercalated species. The LFRP
was carried out by heating a dispersion of the intercalated initiator species
in styrene for 4 h; the system solidified completely to yield the
nanocomposite of silicate randomly dispersed spatially and directionally in
the polystyrene matrix consisting of small domains. This level of uniform
dispersion is not achievable by either melt or solution intercalation of a
preformed polystyrene. The polymer was desorbed from the silicate by
refluxing the nanocomposite in THF/LiBr; the low polydispersity index (PDI) of
1.3 and the agreement between the calculated number-average mol. weight (Mn)
of 24 400 and observed Mn of 21 500, indicate a remarkably well-behaved
reaction even under such heterogeneous conditions.

IT 221362-46-5P
 (radical initiator; preparation of radical initiator for synthesis of
 dispersed silicate-polystyrene nanocomposites)
 RN 221362-46-5 HCAPLUS
 CN Benzenemethanaminium, 4-[2-(benzoyloxy)-1-[(2,2,6,6-tetramethyl-1-
 piperidinyl)oxy]ethyl]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX
 NAME)



IT 216104-33-5
 (radical initiator; preparation of radical initiator for synthesis of
 dispersed silicate-polystyrene nanocomposites)
 RN 216104-33-5 HCAPLUS
 CN Benzeneethanol, 4-(chloromethyl)-β-[(2,2,6,6-tetramethyl-1-
 piperidinyl)oxy]-, 1-benzoate (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37, 57

IT 221362-46-5P
 (radical initiator; preparation of radical initiator for synthesis of
 dispersed silicate-polystyrene nanocomposites)
 IT 216104-33-5
 (radical initiator; preparation of radical initiator for synthesis of
 dispersed silicate-polystyrene nanocomposites)
 IT 1318-93-0, Montmorillonite, uses
 (support and nanocomposite component; synthesis of dispersed
 nanocomposites by in situ living free radical polymerization using
 silicate-anchored initiator)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L41 ANSWER 37 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:614328 HCAPLUS Full-text

10/519,030

DOCUMENT NUMBER: 129:302983
 TITLE: Polymers having cores and branched linear arms for optical uses
 INVENTOR(S): Kushida, Takashi; Sadanobu, Jiro
 PATENT ASSIGNEE(S): Teijin Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10251337	A	19980922	JP 1997-59091	19970313
			<--	
PRIORITY APPLN. INFO.:			JP 1997-59091	19970313
			<--	

ED Entered STN: 29 Sep 1998
 GI

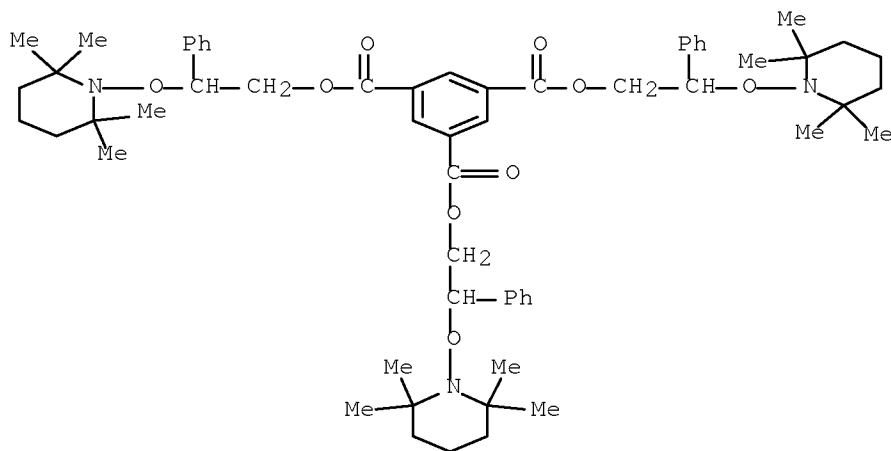
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title polymers have multifunctional cores and linear polymer arms with mol. weight 500-1,000,000 extended like stars or combs. The polymers are used as optical materials showing small optical anisotropy and high heat resistance. Thus, styrene was polymerized by using a polyfunctional polymerization initiator I in N at 130° for 30 h to give a branched polystyrene (having 3 arms) having weight average mol. weight (Mw) 9,4 + 104, Mw at arm part 3.2 + 104, and glass-transition temperature 109°.

IT 166983-62-6
 (polymerization initiators; for branched polystyrene with low optical anisotropy and heat resistance)

RN 166983-62-6 HCAPLUS

CN 1,3,5-Benzenetricarboxylic acid, tris[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



IC ICM C08F012-08
 ICS C08G061-06; C08J005-18; G02B001-04; B29C055-12; B29L007-00
 CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 73
 IT 166983-62-6
 (polymerization initiators; for branched polystyrene with low
 optical anisotropy and heat resistance)

L41 ANSWER 38 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:572917 HCAPLUS Full-text

DOCUMENT NUMBER: 129:276766

TITLE: Soluble supports tailored for organic synthesis:
 parallel polymer synthesis via sequential
 normal/living free radical processes

AUTHOR(S): Gravert, Dennis J.; Datta, Anita; Wentworth, Paul,
 Jr.; Janda, Kim D.

CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute
 for Chemical Biology, Scripps Research Institute,
 La Jolla, CA, 92037, USA

SOURCE: Journal of the American Chemical Society (
 1998), 120(37), 9481-9495

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 10 Sep 1998

AB To expand the availability and solubility range of polymer supports for
 liquid-phase organic synthesis (LPOS) we have applied a sequence of normal and
 "living" free radical polymerization to generate a library of block copolymers
 possessing either block or graft architecture with initiators and a diverse
 set of vinyl monomers. The structure, mol. weight, and polydispersity (PD) of
 the individual library members have been determined by size exclusion
 chromatog. (SEC), ¹H and ¹³C NMR, and as a function of the solubility of each
 polymer in a range of solvents. One copolymer, polyBS-DS (Mn = 17 000, PD =
 1.54) derived from 4-tert-butylstyrene (BS), 3,4-dimethoxystyrene (DS) has a
 solubility profile [soluble in toluene, THF (THF), ether, acetone and
 methylene chloride (DCM), insol. in methanol and water] that is different from
 the present polymer of choice for LPOS, poly(ethylene) glycol (PEG), and was
 studied in some detail as a new support in LPOS. The α -nitrile groups of
 polyBS-DS are reduced smoothly with LiAlH₄ in THF to give the amino
 functionalized copolymer (0.14 mmol g⁻¹ of amino groups based on a quant.
 ninhydrin anal.). Kinetic studies have revealed that derivatization of the
 amino groups of the copolymer with 4-dimethylaminocinnamaldehyde occurs at a
 comparable rate to a solution counterpart (k_{poly22} = 0.49 L mol⁻¹ h⁻¹ vs
 k_{amino}hexane = 0.69 L mol⁻¹ h⁻¹). Following reaction with N-glutaroyl-
 (2S,4S)-4-diphenylphosphino- 2-[(diphenylphosphino)methyl]pyrrolidine and
 exchange of Rh(I), the resulting phosphine containing copolymer, catalyzes the
 enantioselective hydrogenation of 2-N-acetamidoacrylic acid to N-acetylalanine
 in THF. An 87% enantiomeric excess (ee) of (S)-N-acetylalanine is obtained,
 comparable to that observed with a homogeneous phosphine ligand. This work
 highlights the power of a parallel polymer synthesis strategy, from conception
 to application, for the generation of polymers possessing unique solubility
 profiles and functionality which can serve as novel supports in LPOS.

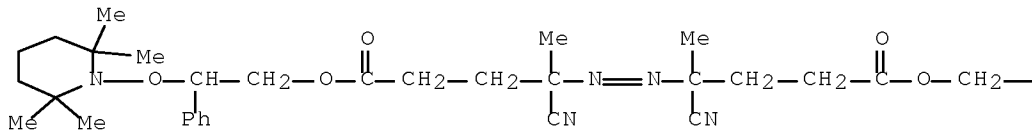
IT 188119-33-7 203382-60-9

(catalyst for; parallel polymer preparation via sequential
 normal/living free radical polymerization)

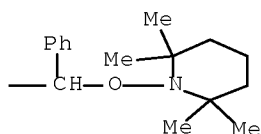
RN 188119-33-7 HCAPLUS

CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-
 tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



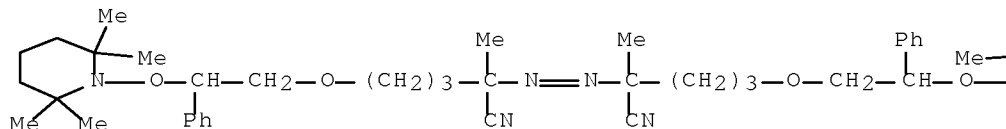
PAGE 1-B



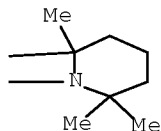
RN 203382-60-9 HCAPLUS

CN Pentanenitrile, 2,2'-azobis[2-methyl-5-[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

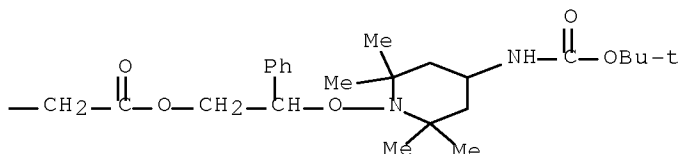
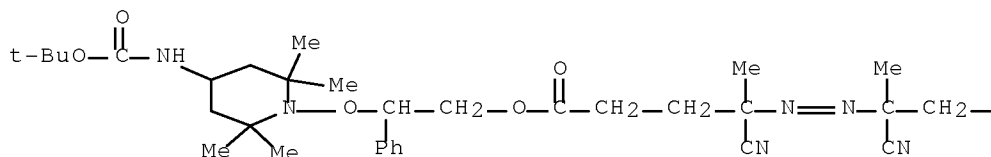


IT 213994-38-8P

(catalyst for; parallel polymer preparation via sequential normal/living free radical polymerization)

RN 213994-38-8 HCAPLUS

CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-[[4-[[[(1,1-dimethylethoxy)carbonyl]amino]-2,2,6,6-tetramethyl-1-piperidinyl]oxy]-2-phenylethyl] ester (9CI) (CA INDEX NAME)

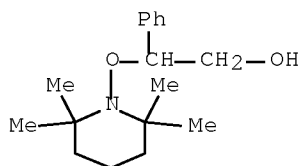


IT 161776-41-6

(in preparation of catalyst; parallel polymer preparation via sequential normal/living free radical polymerization)

RN 161776-41-6 HCAPLUS

CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)

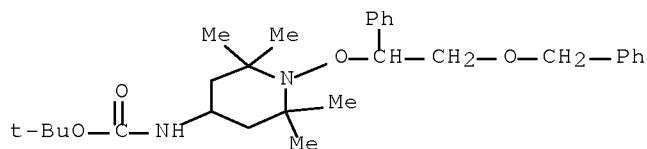


IT 213994-47-9P 213994-50-4P

(in preparation of catalyst; parallel polymer preparation via sequential normal/living free radical polymerization)

RN 213994-47-9 HCAPLUS

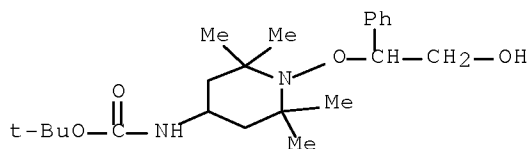
CN Carbamic acid, [2,2,6,6-tetramethyl-1-[1-phenyl-2-(phenylmethoxy)ethoxy]-4-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 213994-50-4 HCAPLUS

10/519,030

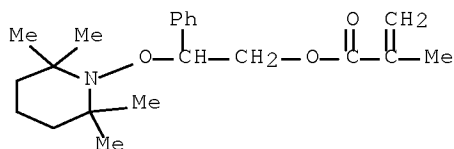
CN Carbamic acid, [1-(2-hydroxy-1-phenylethoxy)-2,2,6,6-tetramethyl-4-piperidinyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IT 213994-57-1P
(parallel polymer preparation via sequential normal/living
free radical polymerization)

RN 213994-57-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester (CA INDEX NAME)



IT 213994-83-3P 213994-85-5P 213994-88-8P
213994-90-2P
(parallel polymer preparation via sequential normal/living
free radical polymerization)

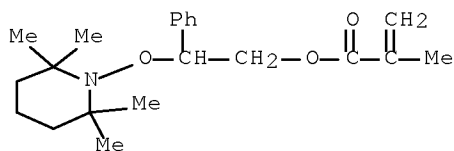
RN 213994-83-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl ester, polymer with ethenylbenzene and 4-ethenyl-1,2-dimethoxybenzene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1

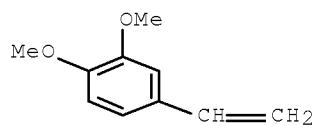
CMF C21 H31 N O3



CM 2

CRN 6380-23-0

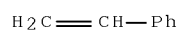
CMF C10 H12 O2



CM 3

CRN 100-42-5

CMF C8 H8



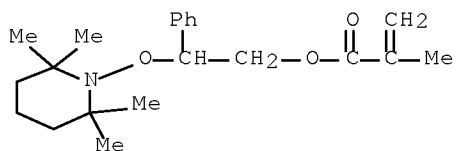
RN 213994-85-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl ester, polymer with 4-ethenyl-1,2-dimethoxybenzene (9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1

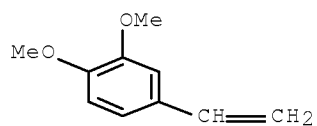
CMF C21 H31 N O3



CM 2

CRN 6380-23-0

CMF C10 H12 O2



RN 213994-88-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-

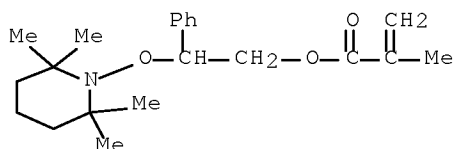
10/519,030

piperidinyloxy]ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone
(9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1

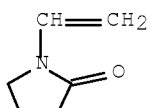
CMF C21 H31 N O3



CM 2

CRN 88-12-0

CMF C6 H9 N O



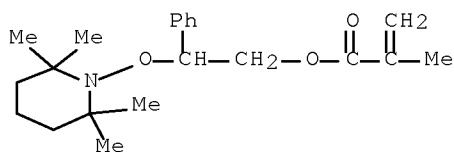
RN 213994-90-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl ester, polymer with 4-ethenyl-1,2-dimethoxybenzene and 1-ethenyl-2-pyrrolidinone, graft (9CI) (CA INDEX NAME)

CM 1

CRN 213994-57-1

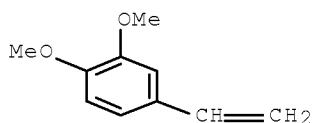
CMF C21 H31 N O3



CM 2

CRN 6380-23-0

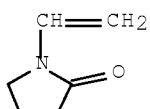
CMF C10 H12 O2



CM 3

CRN 88-12-0

CMF C6 H9 N O



CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 67

IT 188119-33-7 203382-60-9
 (catalyst for; parallel polymer preparation via sequential
 normal/living free radical polymerization)

IT 213994-38-8P
 (catalyst for; parallel polymer preparation via sequential
 normal/living free radical polymerization)

IT 920-46-7, Methacryloyl chloride 4693-47-4 14691-88-4 24424-99-5,
 Di-tert-butyl dicarbonate 161776-41-6
 (in preparation of catalyst; parallel polymer preparation via
 sequential normal/living free radical polymerization)

IT 213994-43-5P 213994-47-9P 213994-50-4P
 (in preparation of catalyst; parallel polymer preparation via
 sequential normal/living free radical polymerization)

IT 213994-57-1P
 (parallel polymer preparation via sequential normal/living
 free radical polymerization)

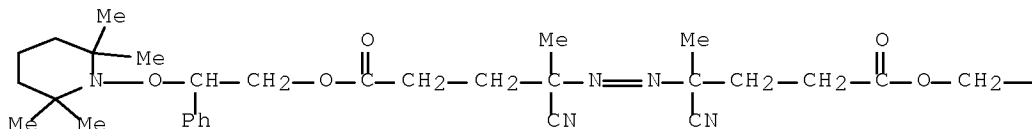
IT 6203-18-5DP, reaction products with reduced and hydrogenated Bu
 styrene-dimethoxystyrene block copolymer 97395-21-6P 110661-56-8P,
 4-tert-Butylstyrene-styrene block copolymer 116219-50-2P,
 Styrene-N-vinylpyrrolidone block polymer 181784-89-4P,
 N-Isopropylacrylamide-styrene block polymer 213994-60-6P,
 Styrene-3,4-Dimethoxystyrene block copolymer 213994-69-5P
 213994-72-0P 213994-74-2P 213994-79-7P 213994-83-3P
 213994-85-5P 213994-88-8P 213994-90-2P
 214777-13-6P
 (parallel polymer preparation via sequential normal/living
 free radical polymerization)

REFERENCE COUNT: 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR
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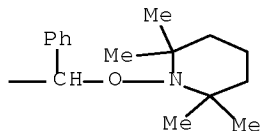
10/519,030

ACCESSION NUMBER: 1998:159571 HCAPLUS Full-text
DOCUMENT NUMBER: 128:180697
TITLE: Bifunctional initiators for free radical
polymerization of non-crosslinked block copolymers
AUTHOR(S): Gravert, Dennis J.; Janda, Kim D.
CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute
for Chemical Biology, The Scripps Research
Institute, La Jolla, CA, 92037, USA
SOURCE: Tetrahedron Letters (1998), 39(12),
1513-1516
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 18 Mar 1998
AB Novel bifunctional initiators have been designed with functional groups that
independently produce free radicals. Initiators were synthesized to contain
both diazene (-N:N-) and 2,2,6,6-tetramethylpiperidinyloxy (TEMPO)
moieties tethered by ester or ether linkages. It is anticipated that these
compds. will be useful for producing a diverse number of block copolymers for
applications in polymer-supported organic synthesis and materials science.
IT 188119-33-7 203382-60-9
(preparation of bifunctional initiators for free radical polymer
. of non-crosslinked block copolymers)
RN 188119-33-7 HCAPLUS
CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-
tetramethyl-1-piperidinyloxy)ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

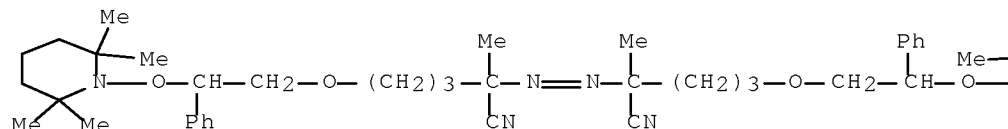


PAGE 1-B

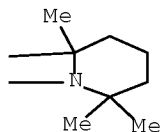


RN 203382-60-9 HCAPLUS
CN Pentanenitrile, 2,2'-azobis[2-methyl-5-[2-phenyl-2-[(2,2,6,6-
tetramethyl-1-piperidinyloxy)ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

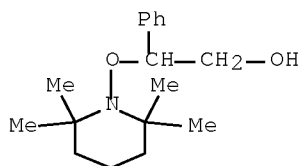


IT 161776-41-6

(preparation of bifunctional initiators for free radical polymerization of non-crosslinked block copolymers)

RN 161776-41-6 HCAPLUS

CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 188119-33-7 203382-60-9

(preparation of bifunctional initiators for free radical polymerization of non-crosslinked block copolymers)

IT 2638-94-0 4693-47-4 161776-41-6

(preparation of bifunctional initiators for free radical polymerization of non-crosslinked block copolymers)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 40 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:146714 HCAPLUS Full-text

DOCUMENT NUMBER: 128:180774

TITLE: In-situ block copolymer formation during polymerization of a vinyl aromatic monomer

INVENTOR(S): Priddy, Duane B.; Li, Irene Q.

PATENT ASSIGNEE(S): Dow Chemical Co., USA

SOURCE: U.S., 7 pp.

10/519,030

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5721320	A	19980224	US 1997-810878	19970305

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PRIORITY APPLN. INFO.:

US 1997-810878

19970305

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ED Entered STN: 11 Mar 1998

AB The title process for producing a rubber modified polymer from a vinyl aromatic monomer comprising: polymerizing the vinyl aromatic monomer in the presence of a diene rubber having at least one stable free radical group, under polymerization conditions such that a vinyl aromatic-diene block and/or graft copolymer rubber is formed. A nitroxide-terminated polybutadiene was prepared by polymerizing butadiene in the presence of sec-BuLi and 2-phenyl-2-(2,2,6,6-tetramethylpiperidinyl-1-oxy)ethyl glycidyl ether and used in polymerizing styrene to obtain a transparent high-impact polymer.

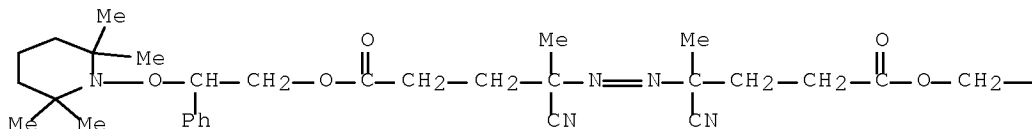
IT 188119-33-7P 191217-21-7P

(in-situ block copolymer formation during polymerization of a vinyl aromatic monomer)

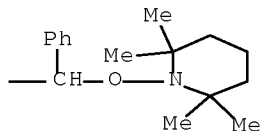
RN 188119-33-7 HCAPLUS

CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

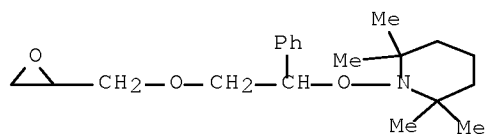


PAGE 1-B

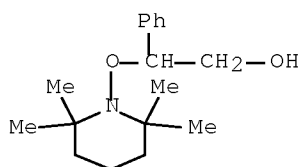


RN 191217-21-7 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-[2-(oxiranylmethoxy)-1-phenylethoxy]- (9CI) (CA INDEX NAME)



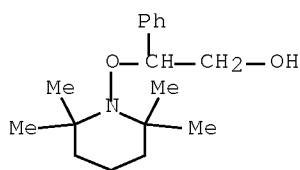
IT 161776-41-6
 (in-situ block copolymer formation during polymerization of a
 vinyl aromatic monomer)
 RN 161776-41-6 HCAPLUS
 CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA
 INDEX NAME)



IC ICM C08F255-10
 ICS C08F002-38
 INCL 525316000
 CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 188119-33-7P 191217-21-7P
 (in-situ block copolymer formation during polymerization of a
 vinyl aromatic monomer)
 IT 106-89-8, Epichlorohydrin, reactions 17170-81-9 161776-41-6
 (in-situ block copolymer formation during polymerization of a
 vinyl aromatic monomer)
 REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

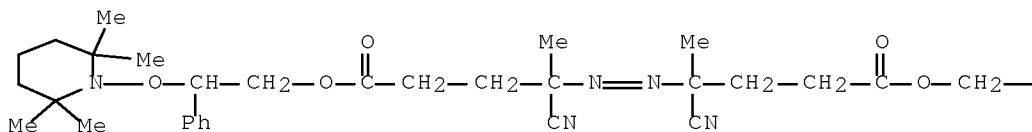
L41 ANSWER 41 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1997:532628 HCAPLUS Full-text
 DOCUMENT NUMBER: 127:221034
 TITLE: Block Copolymer Preparation Using Sequential
 Normal/Living Radical Polymerization Techniques
 AUTHOR(S): Li, I. Q.; Howell, B. A.; Dineen, M. T.; Kastl, P.
 E.; Lyons, J. W.; Meunier, D. M.; Smith, P. B.;
 Priddy, D. B.
 CORPORATE SOURCE: Center for Applications in Polymer Science,
 Central Michigan University, Mount Pleasant, MI,
 48859, USA
 SOURCE: Macromolecules (1997), 30(18), 5195-5199
 CODEN: MAMOBX; ISSN: 0024-9297
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 21 Aug 1997

- AB Anionic and nitroxide-mediated (NM) radical polymerization works well for styrene but not for acrylates. We have overcome this problem and successfully prepared styrene-*b*-Bu acrylate (S-BA), styrene-*b*-Me methacrylate (S-MMA), styrene-*b*-isoprene (S-IP), and styrene-*alt*-acrylonitrile-*b*-isoprene (SAN-IP) polymers using a sequential normal/living radical polymerization scheme. Clear (S-IP and SAN-IP) to translucent (S-BA and S-MMA) films were obtained having microphase-separated polymer morphol. GPC studies and chemical digestion of the IP segments of S-IP and SAN-IP block copolymers confirmed their block structure. The sequential normal/living radical polymerization approach provides a new route to synthesize block polymers that have previously proven very difficult to make.
- IT 161776-41-6
(initiator synthesis; preparation of acrylic block copolymers using sequential normal/living radical polymerization)
- RN 161776-41-6 HCAPLUS
- CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyloxy)]- (CA INDEX NAME)

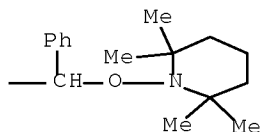


- IT 188119-33-7P
(preparation of acrylic block copolymers using sequential normal/living radical polymerization initiated by AIBN and)
- RN 188119-33-7 HCAPLUS
- CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyloxy)ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



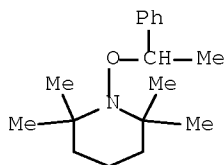
10/519,030

CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36
IT 17170-81-9 161776-41-6
(initiator synthesis; preparation of acrylic block copolymers using
sequential normal/living radical polymerization)
IT 188119-33-7F
(preparation of acrylic block copolymers using sequential normal/living
radical polymerization initiated by AIBN and)
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 42 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:324791 HCAPLUS Full-text
DOCUMENT NUMBER: 127:5476
TITLE: Difunctional living free radical polymerization
initiators for vinyl aromatic monomers
INVENTOR(S): Koster, Robert A.; Priddy, Duane B.; Li, Irene
PATENT ASSIGNEE(S): Dow Chemical Co., USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 5627248	A	19970506	US 1995-533799	19950926
			<--	
US 5677388	A	19971014	US 1996-731216	19961008
			<--	
PRIORITY APPLN. INFO.:			US 1995-533799	A3 19950926
			<--	

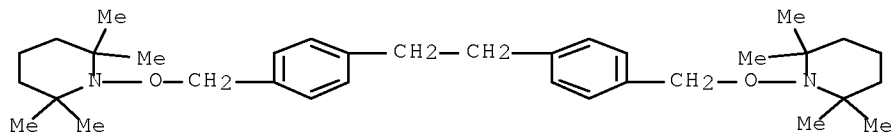
OTHER SOURCE(S): MARPAT 127:5476
ED Entered STN: 22 May 1997
AB Vinyl aromatic monomers are polymerized in high conversion and low
polydispersity using a difunctional nitroxyl initiator R1[-CR2R3-O-NR4R5]2; R1
= linking group; R2, R3 = H, alkyl, cycloalkyl, activating group, or alkyl
bridging group; R4, R5 = alkyl, aryl, or C4-10-alkyl ring.
IT 154554-67-3P 184646-29-5P 184646-30-8P
(free radical polymerization initiators for vinyl aromatic
monomers)
RN 154554-67-3 HCAPLUS
CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



RN 184646-29-5 HCAPLUS
CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenylenemethyleneoxy)]bis[2,2

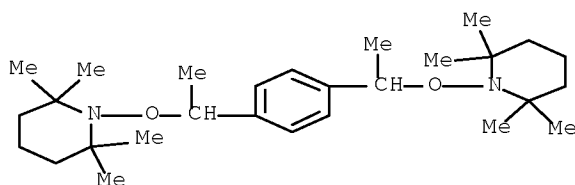
10/519,030

,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 184646-30-8 HCAPLUS

CN Piperidine, 1,1'-[1,4-phenylenebis(ethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C08F002-00

ICS C08F220-10; C08F012-08; B01J031-06

INCL 526217000

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 28, 67

IT 154554-67-3P 184646-29-5P 184646-30-8P

(free radical polymerization initiators for vinyl aromatic monomers)

L41 ANSWER 43 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:224604 HCAPLUS Full-text

DOCUMENT NUMBER: 126:225616

TITLE: Block copolymer preparation using normal/living tandem polymerization

AUTHOR(S): Li, I. Q.; Howell, B. A.

CORPORATE SOURCE: Cent. Appli. Polym. Sci., Central Michigan Univ.,
nmut Pleasant, MI, 48859, USA

SOURCE: Polymer Preprints (American Chemical Society,
Division of Polymer Chemistry) (1997),
38(1), 762-763

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer
Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 07 Apr 1997

AB Normal/living sequential polymerization of Bu acrylate and styrene yields translucent films having microphase separated morphol., indicative of block copolymers with incompatible segments. The tandem polymerization approach is based on normal and nitroxyl-mediated living radical polymerization. In contrast, poly(Bu acrylate) (pBA)- polystyrene prepared by polymerizing styrene in the presence of pBA yielded a brittle and opaque film having a

morphol. of pBA droplets dispersed in polystyrene and no sign of microphase separation

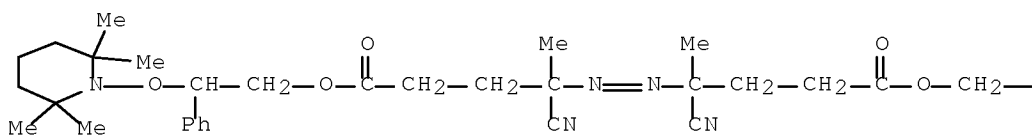
IT 188119-33-7P

(radical initiator; preparation and morphol. of Bu acrylate-styrene block copolymer by normal/living tandem polymerization)

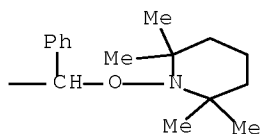
RN 188119-33-7 HCAPLUS

CN Pentanoic acid, 4,4'-azobis[4-cyano-, bis[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

IT 188119-33-7P

(radical initiator; preparation and morphol. of Bu acrylate-styrene block copolymer by normal/living tandem polymerization)

L41 ANSWER 44 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:702098 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 126:31705

TITLE: Mono- and Dinitroxide Styrene Polymerization Initiators

AUTHOR(S): Li, I. Q.; Howell, B. A.; Koster, R. A.; Priddy, D. B.

CORPORATE SOURCE: Center for Applications in Polymer Science, Central Michigan University, Mount Pleasant, MI, 48859, USA

SOURCE: Macromolecules (1996), 29(26), 8554-8555

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 27 Nov 1996

AB Nitroxide-mediated radical polymerization of styrene and of block copolymers of styrene was attempted with mono- and dinitroxide initiators. Benzylic nitroxides were not active initiators unless the benzylic carbon was secondary. Triblock copolymers were prepared by isolating and reacting (with p-methylstyrene) telechelic polystyrene prepared from a dinitroxide initiator.

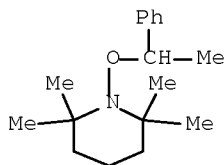
IT 154554-67-3 184646-29-5 184646-30-8

10/519,030

(nitroxide-mediated radical polymerization and block copolymn.
of styrene with mono- and dinitroxide initiators)

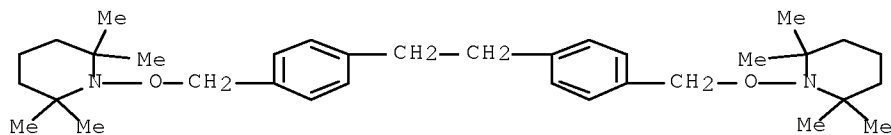
RN 154554-67-3 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)



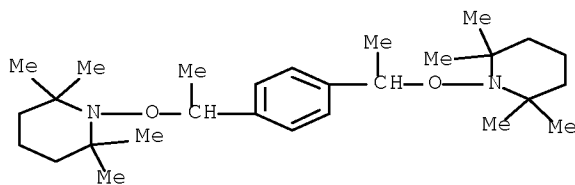
RN 184646-29-5 HCAPLUS

CN Piperidine, 1,1'-[1,2-ethanediylbis(4,1-phenylenemethyleneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 184646-30-8 HCAPLUS

CN Piperidine, 1,1'-[1,4-phenylenebis(ethylideneoxy)]bis[2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 154554-67-3 184646-29-5 184646-30-8

(nitroxide-mediated radical polymerization and block copolymn.
of styrene with mono- and dinitroxide initiators)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L41 ANSWER 45 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

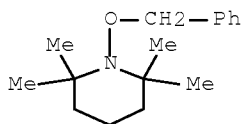
ACCESSION NUMBER: 1996:436560 HCAPLUS Full-text

DOCUMENT NUMBER: 125:115236

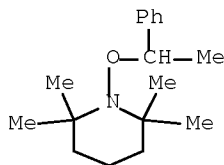
TITLE: Photochemical synthesis of TEMPO-capped initiators
for "living" free radical polymerization

AUTHOR(S): Connolly, Terrence J.; Baldovi, M. V.; Mohtat, N.;

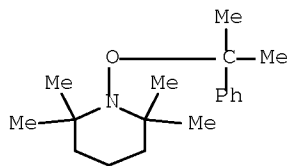
Scaiano, J. C.
 CORPORATE SOURCE: Dep. Chemistry, Univ. Ottawa, Ottawa, ON, K1N 6N5,
 Can.
 SOURCE: Tetrahedron Letters (1996), 37(28),
 4919-4922
 CODEN: TELEAY; ISSN: 0040-4039
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 24 Jul 1996
 AB Two photochem. routes to stoichiometric initiators used in living free-radical
 polymns. are presented. These routes offer the advantages of higher yields
 and allow for the preparation of initiators not accessible using current
 methodol. All initiators gave detectable carbon centered radicals (laser
 flash photolysis) and promoted the polymerization of styrene.
 IT 102261-92-7P 154554-67-3P 157462-14-1P
 178625-99-5P 179417-95-9P 179417-97-1P
 (catalyst; photochem. synthesis of Tempo-capped initiators for
 living free-radical polymerization)
 RN 102261-92-7 HCAPLUS
 CN Piperidine, 2,2,6,6-tetramethyl-1-(phenylmethoxy)- (CA INDEX NAME)



RN 154554-67-3 HCAPLUS
 CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)- (CA INDEX NAME)

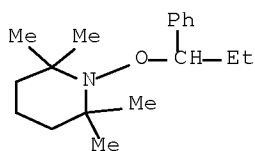


RN 157462-14-1 HCAPLUS
 CN Piperidine, 2,2,6,6-tetramethyl-1-(1-methyl-1-phenylethoxy)- (CA
 INDEX NAME)



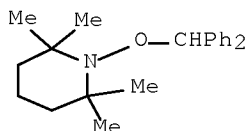
RN 178625-99-5 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1-(1-phenylpropoxy)- (CA INDEX NAME)



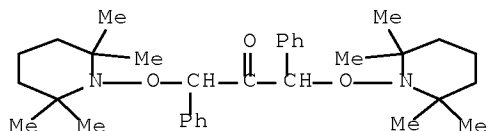
RN 179417-95-9 HCAPLUS

CN Piperidine, 1-(diphenylmethoxy)-2,2,6,6-tetramethyl- (CA INDEX NAME)



RN 179417-97-1 HCAPLUS

CN 2-Propanone, 1,3-diphenyl-1,3-bis[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)

IT 102261-92-7P 154554-67-3P 157462-14-1P

178625-99-5P 179417-95-9P 179417-97-1P

(catalyst; photochem. synthesis of Tempo-capped initiators for living free-radical polymerization)

L41 ANSWER 46 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:734286 HCAPLUS Full-text

DOCUMENT NUMBER: 123:144710

ORIGINAL REFERENCE NO.: 123:25813a,25816a

TITLE: Architectural control in "living" free radical polymerizations: preparation of star and graft polymers

AUTHOR(S): Hawker, Craig J.

CORPORATE SOURCE: Almaden Res. Cent., IBM Res. Cent., San Jose, CA, 95120-6099, USA

SOURCE: Angewandte Chemie, International Edition in English (1995), 34(13/14), 1456-9

PUBLISHER: VCH
DOCUMENT TYPE: Journal
LANGUAGE: English

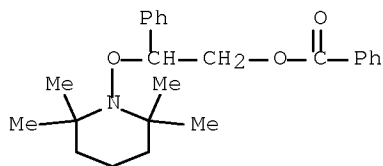
ED Entered STN: 12 Aug 1995

AB Living free radical polymns. based on TEMPO [2,2,6,6-tetramethylpiperidinyloxy] derivs. alloy for accurate control of macromol. architecture. Star and graft copolymers can be prepared from the appropriate multi-functional initiators with no crosslinking or termination by combination, even under melt conditions. The mol. weight of the arms, or grafts, can be controlled by varying the equivalent of monomer added while maintaining very low polydispersity. The 2,2,6,6-tetramethylpiperidinyloxy-benzoate precursor underwent hydrolysis of the benzyl ester group to give the alc. Reaction of the alc. with 1,3,5-benzenetricarbonyl chloride in the presence of 4-dimethylaminopyridine produced the tri-functional initiator. Bulk polymerization of deuterated styrene with the tri-functional initiator produced the polystyrene in 84% yield. The polystyrene underwent hydrolysis with KOH and the hydrolyzed product has a mol. weight of 7600, which agrees closely with the theor. value for one arm of the star polymer [mol. weight 7000]. An analogous polymerization scheme was also developed to prepare graft systems.

IT 81913-53-3
(architectural control in living free radical polymns.
with TEMPO derivative functional initiators for star and graft
polymers)

RN 81913-53-3 HCAPLUS

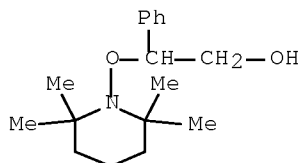
CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyloxy)-,
1-benzoate (CA INDEX NAME)



IT 161776-41-6P
(architectural control in living free radical polymns.
with TEMPO derivative functional initiators for star and graft
polymers)

RN 161776-41-6 HCAPLUS

CN Benzeneethanol, β -[(2,2,6,6-tetramethyl-1-piperidinyloxy)- (CA
INDEX NAME)



IT 166983-64-8P
 (functional copolymer and macroinitiator for preparation of branched polystyrene; architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)

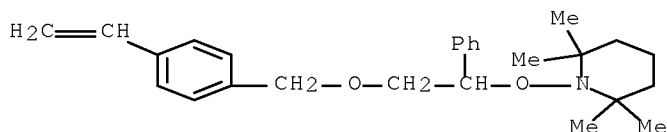
RN 166983-64-8 HCAPLUS

CN Piperidine, 1-[2-[(4-ethenylphenyl)methoxy]-1-phenylethoxy]-2,2,6,6-tetramethyl-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 166983-63-7

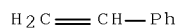
CMF C26 H35 N O2



CM 2

CRN 100-42-5

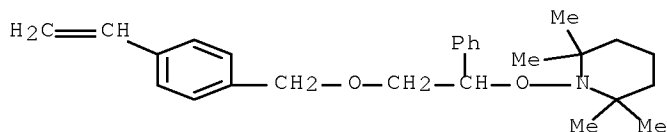
CMF C8 H8



IT 166983-63-7P
 (functional graft monomer; architectural control in living free radical polymos. with TEMPO derivative functional initiators for star and graft polymers)

RN 166983-63-7 HCAPLUS

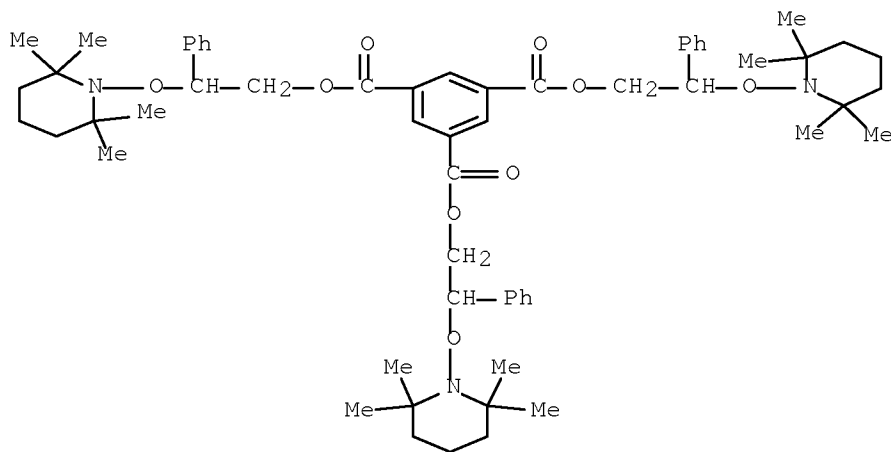
CN Piperidine, 1-[2-[(4-ethenylphenyl)methoxy]-1-phenylethoxy]-2,2,6,6-tetramethyl- (CA INDEX NAME)



IT 166983-62-6P
 (tri-functional initiator; architectural control in living free radical polymns. with TEMPO derivative functional initiators for star and graft polymers)

RN 166983-62-6 HCAPLUS

CN 1,3,5-Benzenetricarboxylic acid, tris[2-phenyl-2-[(2,2,6,6-tetramethyl-1-piperidinyl)oxy]ethyl] ester (9CI) (CA INDEX NAME)



- CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36
- IT 1310-58-3, Potassium hydroxide, reactions 1592-20-7,
p-Chloro-methylstyrene 4422-95-1, 1,3,5-Benzenetricarbonyl chloride
81913-53-3
(architectural control in living free radical polymers.
with TEMPO derivative functional initiators for star and graft
polymers)
- IT 161776-41-6P
(architectural control in living free radical polymers.
with TEMPO derivative functional initiators for star and graft
polymers)
- IT 166983-64-8P
(functional copolymer and macroinitiator for preparation of branched
polystyrene; architectural control in living free radical
polymers. with TEMPO derivative functional initiators for star
and graft polymers)
- IT 166983-63-7P
(functional graft monomer; architectural control in living free
radical polymers. with TEMPO derivative functional initiators
for star and graft polymers)
- IT 166983-62-6P
(tri-functional initiator; architectural control in living free
radical polymers. with TEMPO derivative functional initiators
for star and graft polymers)

L41 ANSWER 47 OF 47 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:657520 HCAPLUS Full-text

DOCUMENT NUMBER: 115:257520

ORIGINAL REFERENCE NO.: 115:43797a,43800a

TITLE: Polymers stabilized with N-substituted hindered
amines

INVENTOR(S): Cortolano, Frank P.; Seltzer, Raymond; Patel,
Ambelal R.

PATENT ASSIGNEE(S): Ciba-Geigy Corp., USA

SOURCE: U.S., 19 pp. Cont.-in-part of U.S. Ser. No.

10/519,030

259,955, abandoned.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5004770	A	19910402	US 1989-416621	19891003

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PRIORITY APPLN. INFO.:

US 1988-259955

B2 19881019

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OTHER SOURCE(S): MARPAT 115:257520

ED Entered STN: 14 Dec 1991

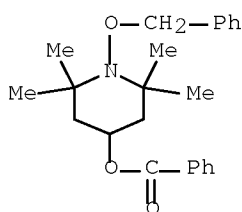
AB Compds. bearing 2,2,6,6-tetraalkylpiperidine or -piperazine groups with the hindered N atom being substituted with OH or OR (R = organic) are useful as stabilizers for polymers other than polyolefins. A PVC plate containing 1% bis(1-methoxy-2,2,6,6-tetramethylpiperidin-4-yl) isophthalate (I), had ΔE value 2.8 (ASTM D-1925-63T) after exposing for 3014 h in a weatherometer, vs. 6.7 without I.

IT 73931-11-0, 4-Benzoyloxy-1-benzyloxy-2,2,6,6-tetramethylpiperidine 94271-82-6 117174-68-2
 122586-57-6 122586-63-4 122586-67-8
 122586-68-9 122586-75-8 122809-49-8
 122809-50-1 122809-59-0 122826-60-2
 129750-00-1 137452-89-2 137452-93-8
 137452-96-1 137472-56-1

(stabilizers, for polymers other than polyolefins)

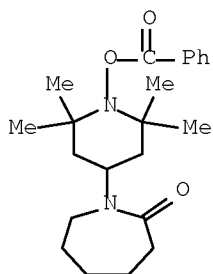
RN 73931-11-0 HCAPLUS

CN 4-Piperidinol, 2,2,6,6-tetramethyl-1-(phenylmethoxy)-, benzoate (ester) (9CI) (CA INDEX NAME)



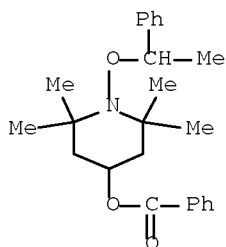
RN 94271-82-6 HCAPLUS

CN 2H-Azepin-2-one, 1-[1-(benzyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]hexahydro- (CA INDEX NAME)



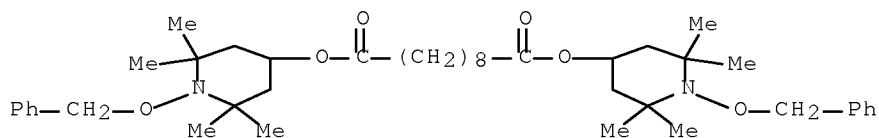
RN 117174-68-2 HCAPLUS

CN 4-Piperidinol, 2,2,6,6-tetramethyl-1-(1-phenylethoxy)-, benzoate (ester) (9CI) (CA INDEX NAME)



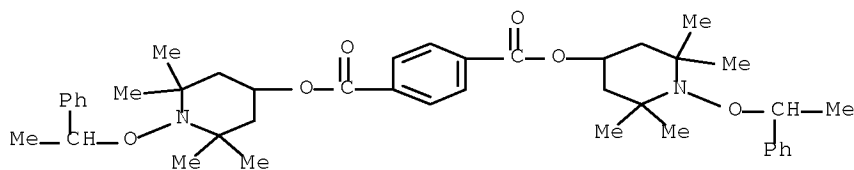
RN 122586-57-6 HCAPLUS

CN Decanedioic acid, bis[2,2,6,6-tetramethyl-1-(phenylmethoxy)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



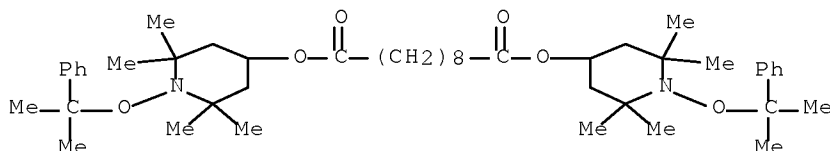
RN 122586-63-4 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis[2,2,6,6-tetramethyl-1-(1-phenylethoxy)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



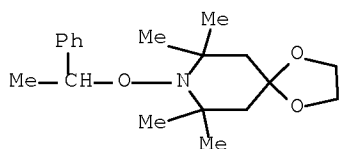
RN 122586-67-8 HCAPLUS

CN Decanedioic acid, bis[2,2,6,6-tetramethyl-1-(1-methyl-1-phenylethoxy)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



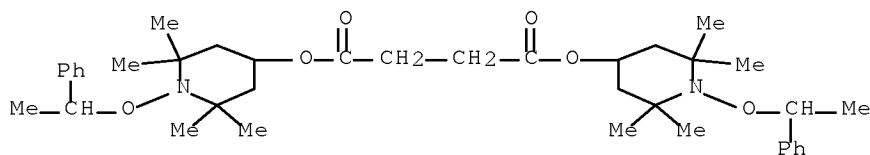
RN 122586-68-9 HCAPLUS

CN 1,4-Dioxo-8-azaspiro[4.5]decane, 7,7,9,9-tetramethyl-8-(1-phenylethoxy)- (CA INDEX NAME)



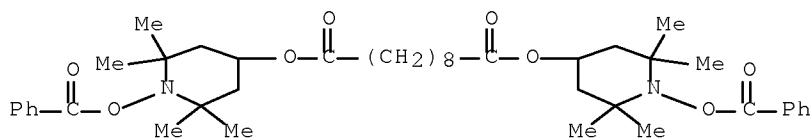
RN 122586-75-8 HCAPLUS

CN Butanedioic acid, bis[2,2,6,6-tetramethyl-1-(1-phenylethoxy)-4-piperidinyl] ester (9CI) (CA INDEX NAME)



RN 122809-49-8 HCAPLUS

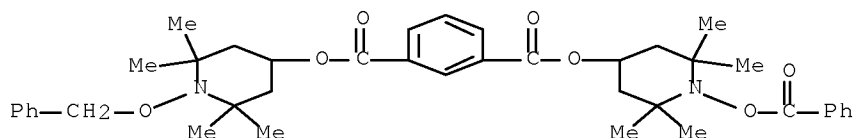
CN Decanedioic acid, bis[1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl] ester (9CI) (CA INDEX NAME)



RN 122809-50-1 HCAPLUS

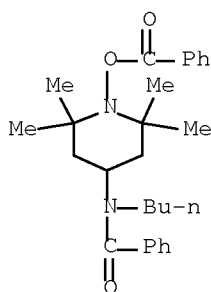
10/519,030

CN 1,3-Benzenedicarboxylic acid, 1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl 2,2,6,6-tetramethyl-1-(phenylmethoxy)-4-piperidinyl ester (9CI) (CA INDEX NAME)



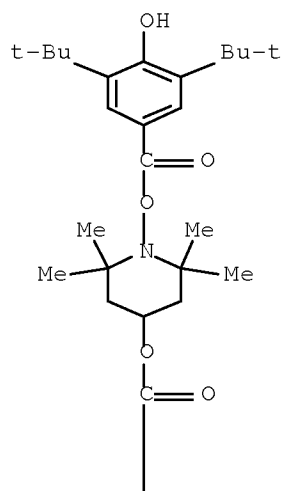
RN 122809-59-0 HCAPLUS

CN Benzamide, N-[1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]-N-butyl- (CA INDEX NAME)

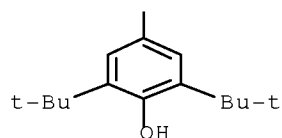


RN 122826-60-2 HCAPLUS

CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxybenzoyl]oxy]-2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)

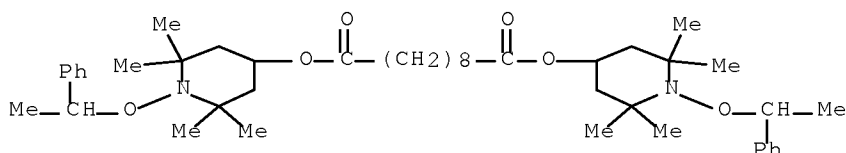


PAGE 1-A



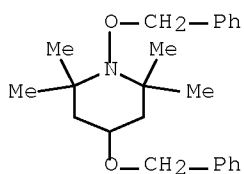
RN 129750-00-1 HCAPLUS

CN Decanedioic acid, 1,10-bis[2,2,6,6-tetramethyl-1-(1-phenylethoxy)-4-piperidinyl] ester (CA INDEX NAME)



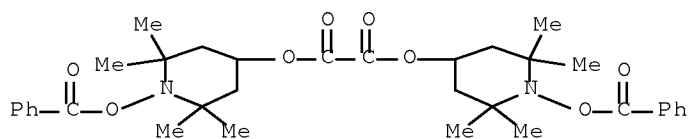
RN 137452-89-2 HCAPLUS

CN Piperidine, 2,2,6,6-tetramethyl-1,4-bis(phenylmethoxy)- (CA INDEX NAME)

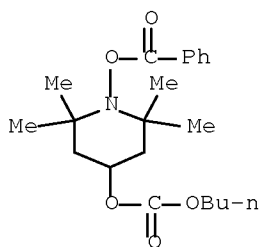


RN 137452-93-8 HCAPLUS

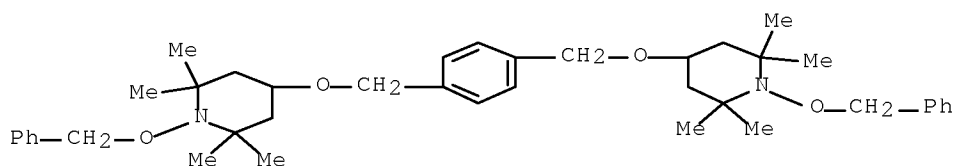
CN Ethanedioic acid, bis[1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl] ester (9CI) (CA INDEX NAME)



RN 137452-96-1 HCAPLUS
 CN Carbonic acid, 1-(benzoyloxy)-2,2,6,6-tetramethyl-4-piperidinyl butyl ester (CA INDEX NAME)



RN 137472-56-1 HCAPLUS
 CN Piperidine, 4,4'-[1,4-phenylenebis(methyleneoxy)]bis[2,2,6,6-tetramethyl-1-(phenylmethoxy)- (9CI) (CA INDEX NAME)



IC ICM C08K005-3435
 INCL 524099000
 CC 37-6 (Plastics Manufacture and Processing)
 IT 73931-11-0, 4-Benzoyloxy-1-benzyloxy-2,2,6,6-tetramethylpiperidine 88699-62-1, 4-Benzoyloxy-1-methoxy-2,2,6,6-tetramethylpiperidine 94271-82-6 99365-17-0 117174-66-0
 117174-68-2 122586-50-9 122586-51-0 122586-52-1
 122586-54-3 122586-55-4 122586-57-6 122586-62-3
 122586-63-4 122586-65-6 122586-67-8
 122586-68-9 122586-75-8 122586-76-9 122586-86-1
 122586-90-7 122586-94-1 122586-95-2 122586-99-6 122587-03-5,
 Bis(1-cyclooctyloxy-2,2,6,6-tetramethylpiperidin-4-yl) sebacate
 122587-05-7 122587-07-9 122587-08-0 122587-09-1 122587-11-5
 122587-16-0 122616-76-6 122616-77-7 122616-78-8 122779-59-3
 122809-40-9 122809-41-0 122809-42-1 122809-43-2 122809-45-4
 122809-46-5 122809-47-6 122809-48-7 122809-49-8
 122809-50-1 122809-51-2 122809-52-3 122809-53-4
 122809-54-5 122809-55-6 122809-59-0 122809-61-4
 122809-63-6 122809-65-8 122809-67-0 122809-68-1 122826-59-9
 122826-60-2 129750-00-1 129750-01-2 129750-02-3
 130048-66-7 130048-67-8, 1,4-Dimethoxy-2,2,6,6-tetramethylpiperidine
 130048-68-9 130048-69-0 137452-89-2 137452-90-5
 137452-91-6 137452-92-7 137452-93-8 137452-94-9
 137452-95-0 137452-96-1 137452-97-2 137452-98-3
 137452-99-4 137453-00-0 137453-01-1 137453-02-2 137453-03-3
 137472-56-1
 (stabilizers, for polymers other than polyolefins)

10/519,030

=> d his nofile

(FILE 'HOME' ENTERED AT 08:31:21 ON 20 MAY 2008)

FILE 'HCAPLUS' ENTERED AT 08:31:33 ON 20 MAY 2008

L1 1 SEA ABB=ON PLU=ON US20050215691/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 08:31:48 ON 20 MAY 2008

L2 57 SEA ABB=ON PLU=ON (100-44-7/BI OR 109-01-3/BI OR
109-54-6/BI OR 109-55-7/BI OR 121-44-8/BI OR 12172-85-9/BI
OR 12173-47-6/BI OR 12174-06-0/BI OR 12244-16-5/BI OR
12417-86-6/BI OR 1318-00-9/BI OR 1318-74-7/BI OR 1318-93-0/
BI OR 1319-41-1/BI OR 1592-20-7/BI OR 17639-93-9/BI OR
188526-94-5/BI OR 20769-85-1/BI OR 2226-96-2/BI OR
264279-93-8/BI OR 319458-08-7/BI OR 478697-26-6/BI OR
565450-32-0/BI OR 61745-37-7/BI OR 61746-17-6/BI OR
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74-88-4/BI OR 74-96-4/BI OR 9003-49-0/BI OR 9003-53-6/BI
OR 998-40-3/BI)
ACT WYR030/Q

L3 STR

DIS SIA
STR L3
L4 0 SEA SSS SAM L4
L5 SCR 1620 OR 1621
L6 28 SEA SSS SAM L4 AND L6
L7 D QUE STAT
L8 50 SEA SSS SAM L3 AND L6
L9 STR L4
L10 32 SEA SSS SAM L9 AND L6
L11 1865 SEA SSS FUL L9 AND L6
L12 22 SEA ABB=ON PLU=ON L11 AND L2
SAV L11 WYR030A/A

FILE 'HCAPLUS' ENTERED AT 09:05:26 ON 20 MAY 2008

L13 6 SEA ABB=ON PLU=ON L12
L14 785 SEA ABB=ON PLU=ON L11
L15 1 SEA ABB=ON PLU=ON L14 AND L1
E CLAYS/CT
L16 110963 SEA ABB=ON PLU=ON CLAYS+PFT,NT/CT
L17 0 SEA ABB=ON PLU=ON L14 AND L16
L18 2 SEA ABB=ON PLU=ON L14 AND CLAY?
L19 402 SEA ABB=ON PLU=ON L14 AND POLYMER?/SC, SX
L20 355 SEA ABB=ON PLU=ON L14(L)POLYMER?
L21 1 SEA ABB=ON PLU=ON L20 AND L1
L22 343 SEA ABB=ON PLU=ON L20 AND (PLASTIC? OR POLYMER?)/SC, SX
L23 272 SEA ABB=ON PLU=ON L22 AND (1840-2004)/PRY,AY,PY

10/519,030

FILE 'REGISTRY' ENTERED AT 09:11:10 ON 20 MAY 2008

L24 STR L9
L25 9 SEA SUB=L11 SSS SAM L24
L26 162 SEA SUB=L11 SSS FUL L24
SAV L26 WYR030B/A

FILE 'HCAPLUS' ENTERED AT 09:20:44 ON 20 MAY 2008

L27 82 SEA ABB=ON PLU=ON L26
L28 38 SEA ABB=ON PLU=ON L27 AND L23
L29 234 SEA ABB=ON PLU=ON L23 NOT L27

FILE 'STNGUIDE' ENTERED AT 09:22:21 ON 20 MAY 2008

L30 QUE ABB=ON PLU=ON CLAY? OR BENTONIT? OR CERAMIC? OR
PHYLOSILICAT? OR MONTMORILLONIT? OR TONSTEIN? OR KAOLINIT?
OR MONTMORILLONITE SMECTIT? OR ILLIT? OR CHLORIT?

FILE 'HCAPLUS' ENTERED AT 09:34:50 ON 20 MAY 2008

L31 0 SEA ABB=ON PLU=ON L29 AND L30
L32 4 SEA ABB=ON PLU=ON L14 AND L30
L33 4 SEA ABB=ON PLU=ON L18 OR (L31 OR L32)
L34 2 SEA ABB=ON PLU=ON L29 AND POLYMER?(3A) (MATRIX? OR
MATRIC?)
L35 4 SEA ABB=ON PLU=ON L14 AND POLYMER?(3A) (MATRIX? OR
MATRIC?)
L36 7 SEA ABB=ON PLU=ON (L33 OR L34 OR L35)
L37 12 SEA ABB=ON PLU=ON L13 OR L36
L38 35 SEA ABB=ON PLU=ON L28 NOT L37
L39 0 SEA ABB=ON PLU=ON L38 AND POLYMER?(3A) (MATRIX? OR
MATRIC?)
L40 35 SEA ABB=ON PLU=ON L38 OR L39
SAV L29 WYR030C/A
L41 47 SEA ABB=ON PLU=ON L37 OR